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ADDRESSES.

THE DOCTORATE ADDRESS,

Delivered to the Graduating Class of the Kentucky School of Medicine, June 19, 1890.

BY GOVERNOR J. PROCTOR KNOTT,
OF KENTUCKY.

After a humorous exordium which at once put him completely *en rapport* with his audience, Governor Knott said:

Pardon me, however, if I call your attention at the very threshold to the duties and responsibilities of the profession to which you have consecrated your talents, your energies and your lives. No other calling known among men demands a more absolute self-negation than the one you have chosen. No other vocation—not even the sacred ministration of religion itself—requires a more constant exercise of the higher faculties of the human mind, or a more earnest devotion of the purer and nobler attributes of the human soul.

The physician who is thoroughly imbued with the true spirit of the Hippocratic oath not only dedicates his life to the service of his fellowman, but abjures everything that can impair his usefulness, degrade his profession, or debase the dignity of his manhood. Wherever the plaintive voice of human suffering calls—whether from the palace or the hovel, the sumptuous abode of luxuriant ease, or the infectuous wards of the loathsome lazar-house—regardless of every consideration of his own security or comfort, unmindful of the tempest that may rage around him, or of the insiduous virus of contagion that may steal into the citadel of his life with the very air he breathes, he must go. While the life or death of his stricken patient may hang upon his tenderness and skill, he is the anxious sufferer's lodestar of hope, the repository of his confidence, the custodian of his honor, his friend and adviser in his last dark hour, and the comforter of the loved ones who may gather in impotent anguish about his dying couch.

If there is one of your number who has failed to realize, in all their awful solemnity, the tremendous obligations inseparable from such duties and responsibilities, or who has not resolved that so far as God hath given him the capacity, he will emulate the virtues and rival the skill of the most accomplished of his compeers or the proudest of his predecessors, I would tell him now, in all sincerity and candor, that he has made a grave mistake in his calling—the noble profession of medicine is not for him.

I congratulate myself in the belief, however, that none of you are so ignoble in your aspirations as to be content with the mean promise of the old Spanish proverb "that in a village where every one else is blind the one-eyed man is king." On the contrary, I feel confident that I voice the unanimous sentiment of your class when I say that one who could be degraded enough to take advantage of the unsuspecting credulity of his fellowman, and ignorantly tamper with his life or his health, with no higher motive than the gratification of a sordid, unholy lust for gain, trusting to the kind offices of the undertaker to hide the evidences of his murderous charlatanry out of sight, it would be the basest flattery to call a scoundrel. I am satisfied that there is not one of you who is not inspired by the noble ambition to become, not only the peer of the proudest of your chosen profession, but *princeps inter pares*.

You should remember, however, that such a position among the truly great does not "come by nature," as honest Dogberry supposed to be the case with reading and writing. If you would occupy it you must win it for yourselves. If you would wear the laurel, you must bear the heat and dust of the arena. You can never scale the perilous pinnacle of professional distinction by standing idly at its base and gazing listlessly at the coveted diadem that glitters upon its summit. You must climb the dizzy height with slow and painful toil, and you had better realize that fact at once.

Let me conjure you, therefore, to set about it now. Eschew, this hour and for life, whatever may tend to impair your faculties or impede your progress. Concentrate all the energy of your nature upon the achievement of that one grand object and enter upon it with an invincible confidence in yourselves. Do not mistake me, I pray you. I do not mean the ridiculous self-conceit of the contemptible coxcomb of the profession, who imagines, because he has his diploma, that his number six hat covers all the medical science

that has been developed since the birth of Chiron the Centaur. When I counsel confidence in yourselves, I mean courage—a brave, manly, unconquerable reliance upon your own exertions; an abiding consciousness that whatever man *has* done, man may do again; the cheerful conviction that Hercules helps those who help themselves. You may do this and still incur no risk of being dazzled by your admiration of your own intellectual endowments. Extraordinary as the natural abilities of some of the more brilliant of your profession may appear to you, the mental disparity between them and yourselves is by no means so great as you may possibly suppose. Axtell or Sunol may be able to go a mile, or ten miles, perhaps, much quicker than a common plug, but the plug will make it in his own time if he keeps on plugging.

Remember, that he who is capable of thoroughly mastering the five fundamental rules of arithmetic may, in time, by patient and persistent effort, solve with facility and pleasure the most abstruse proposition in the highest range of mathematics, and make himself as familiar with the sublime machinery of the siderial universe as with the simplest piece of mechanism fabricated by human hands. What he may lack in natural aptitude he may supply by well-directed energy and patient perseverance. Fix your eye steadily upon the bright goal of your ambition and constantly press toward it

> "———Like the Pontic Sea,
> Whose icy current and compulsive course
> Ne'er feels *retiring* ebb, but keeps due on
> To the Propontic and the Hellespont."

I am aware that when you look over the long catalogue of illustrious names that adorn the annals of your profession, and consider the wonderful contributions they have made to the sciences of medicine and surgery, you are apt to think that your predecessors have left you nothing to do but to practice what they have been taught, or, at best, to glean a well-reaped field where there is no glory to be won and no garlands to be woven. Yet, there was never a graver mistake. Your profession with all its marvelous development in learning and all its astonishing exhibitions of skill, has but rarely approached the domain of scientific truth and anchored in some of its smaller inlets. The occasional adventurer who has gone ashore has only picked up a few trifling pebbles that lay scattered along the beach. The territory remaining to be explored is as illimitable as the universe itself.

The saying is trite, indeed, that of all the great departments of human knowledge, medicine is that in which the accomplished results are most obviously tentative and imperfect; the one in which the range of unrealized possibilities is most varied and extensive, and the one from which the most astonishing and beneficent returns might be expected if the same patient and intelligent investigation were directed to it that has been employed during the current century in mechanical invention and material development. Let me exhort you, then, to learn, above all things, "to labor and to wait." The world was not finished in a day; the mountain range, whose snow-clad summit is kissed by the earliest gleam of the morning sun, was not the growth of an hour, but the slow product of myriads of ages. The history of human progress is crowded with illustrations of the fact that we are constantly in contact with principles and conditions which have remained unobserved since creation's dawn, waiting for some patient, inquisitive thinker to recognize and develop them—great terminal truths which may become the prolific sources of incalculable benefits to our race; and for aught we know, the one who will be crowned, by the common acclaim of coming ages, as the greatest of all the discoverers in medical science the world has ever known, from the age of the Asclepiadæ to the present hour, may be sitting at this moment in your midst.

Have you ever traced the tremendous consequences which have frequently resulted from an accidental thought or the most trivial and aimless experiment? Over twenty-five hundred years ago, Thales of Miletes observed that, by rubbing a bit of amber, it was made to attract light objects with which it was brought in contact. Thousands gazed in stupid wonder upon the mysterious phenomenon. It was noticed three hundred years afterward, by Theophrastus, and four hundred years later, by Pliny; yet none of them ever dreamed that, in the subtle agency which they supposed barely capable of lifting a feather, there lurked the strength of a sleeping giant, more marvelous in the magnitude and versatility of its powers than all the fabled genii of the East. But a little less than a century ago, by the most trifling of all possible accidents, the attention of one of your own profession was directed to the same occult force under different and totally unsuspected conditions. His observations upon the accidental discovery he had made inaugurated a series of intelligent experiments, and, to-day, electricity is the ready servant of man in all his manifold necessities. Tractable as the homing dove, it carries his messages around the world with the speed of thought. It is the unerring instrument of the enlightened scientist in his most subtle investigations, the indispensible implement of the ingenious artisan in his most delicate handicraft, and one of the most effective agencies of the skillful physician in relieving the sufferings of his fellow-beings. It propels our machinery with the power of a thousand horses, and mocks the effulgence of the noonday sun with the dazzling splendor of its light. And yet how little we know of the real nature or the ultimate possibilities of that wonderful agency which

would, perhaps, have remained dormant for ages yet to come but for the initial observations of Galvani!

If I have dwelt at undue length upon this familiar illustration, selected at random from a multitude that might be adduced, I have done so to impress upon your minds, not only the pregnant truth that the wide field of useful labor you have selected teems with rich rewards for your intelligent toil, but the paramount importance of constantly cultivating correct habits of observation and thought. Aristotle was right when he said that "incredulity is the source of all wisdom." You should think for yourselves—closely, carefully, patiently and independently upon everything that may come under your notice, that may be at all cognate to your profession, and never be satisfied that you know enough about anything as long as anything about it remains unknown. Take nothing for granted that may seem inconsistent with correct reason or established facts, simply because some one of acknowledged authority may have said it, and reject nothing as unworthy of your investigation on account of its apparent insignificance, or because it does seem to square precisely with the preconceived theories of the faculty.

Had Jenner been less observant, or less inquisitive, or too bigoted, or too indolent for investigation, he would probably have been content to prescribe some simple salve for the pustule on the milkmaid's hand, and thousands would be dying to-day of small-pox who enjoy an absolute immunity from that dangerous and disgusting disease. Whether the old Jesuit fathers taught the doctrine that "the proof of the pudding is in chewing the bag" I do not know; but, if the doctor who accompanied one of their early missions to Peru had not adopted the custom prevalent among the aborigines of chewing the bark in order to ascertain the nature of the tree, it is probable that the discovery of quinine, the *sine qua non* of his more modern professional brethren, would have been postponed for centuries.

In the first year of the present century, Sir Humphrey Davis suggested the employment of nitrous oxide as an anæsthetic in surgery; but as the suggestion came from a layman it was passed unheeded, if not with silent disdain, by the great lights of your profession. Eighteen years later, Michael Faraday called attention to the anæsthetic effects of sulphuric ether, but it was regarded merely as a matter for curious experiment in the lecture-room, but of no practical consequence. Nearly forty years ago, an obscure but inquisitive countryman happened to be present when one of his neighbors was bitten by a rattlesnake. He not only observed the almost instantaneous effect of the poison, but examined the fang, and finding it to be a finely pointed tube through which the virus had been injected into the circulation of the victim, it occurred to him at once that the effects of an anodyne administered in a similar manner would be equally prompt. He carried the murderous tooth to an intelligent physician, explained its operation, and begged to have an instrument made by which morphine and other medicines might be similarly applied for the relief of human suffering. The doctor smiled at his rustic simplicity, but now he would consider himself everlastingly disgraced if he should be caught without a hypodermic syringe and a little vial of morphine and atropia in his vest pocket.

I mention these facts not only to illustrate the importance of your paying attention to little things, but to warn you not to reject an apparently reasonable suggestion without proper investigation, no matter from what source it may come. The leading principles taught by "the great father of medicine" himself were those of rational empiricism. He neither attempted nor pretended to form his theories from *a priori* reasoning, but made a careful study of the phenomena of nature, and from them deduced such conclusions as those phenomena seemed to justify.

The celebrated Cornelius Celsus, the contemporary, if not an associate, of Horace and Ovid, although a follower of Hippocrates and Asclepiades, was not a blind adherent of any sect. He did not hesitate to dissent from the views of his illustrious prototypes where he thought they were in error, and accepted with equal impartiality whatever he found to commend, whether in the teachings of the Empirics, the Dogmatics, the Methodics or the Eclectics; and the immortal Claudius Galenus himself, the most distinguished and the most esteemed of all the ancient apostles of medical science, while strenuously maintaining the superiority of theory over mere empiricism, blended in his own school the empirical knowledge he had derived from the teachings of Satyrus, Stratonicus and Eschrion. In short, the man who makes himself truly great in any calling is the one who has sense enough to know a good thing when he sees it, and decision of character enough to make it useful whenever he may find it.

Whatever you may accomplish, however, in your professional career, you should make up your minds not to be surprised to find yourselves deprived of much of the credit that may be justly due you. In your profession, as in all others—

> "Full many a flower is born to blush unseen,
> And waste its sweetness on the desert air;"

While, on the other hand, full many a name shines upon the envied page of history with a borrowed light to which it is not entitled, and which its owner himself would not pretend to claim.

Both of these ideas are illustrated, to some extent, in the present fate of the celebrated William Harvey. If that illustrious man could return to the earth to-night, he would probably be astounded

to find himself regarded by millions of people, including a large majority of even the more intelligent classes, as the first discoverer of the mere movement of the blood in the human body, a fact familar to thousands from the earliest antiquity. He was not even the first to suggest the idea of its circulation. which, it is said, was, at least remotely, conjectured by the immortal Stagirite himself, and still more distinctly by Mondino, Berenger and others of more modern times. Whether it was observed by the great Vesalius or not, we have no means of knowing, but it is certain that the leading outlines, not only of the pulmonary but the larger circulation, were taught by his friend and successor, the ill-fated Michael Servetus, more than fifty years before Harvey was born; and still more clearly by others, especially by Harvey's preceptor in anatomy — Fabricius — who pointed out to his pupil the valves in the veins of the extremities, and set his inquisitive mind to investigating their office. If he could stand where I stand and speak to you as I do tonight, he would tell you that he only did what some of you may yet do with respect to some other important but unsettled question in your profession. That he was not willing to sit down, content with what others had ascertained, but that he gathered up all the facts already known, improved upon the knowledge of his predecessors, and, by a series of patient, intelligent and carefully conducted experiments, elaborated an already existing theory, and demonstrated its truth to the exclusion of a doubt.

I have alluded to the example of this famous physician, however, more especially to emphasize the important truth that, without a certain degree of dissatisfaction with the existing condition of professional learning, coupled with a passionate disposition for honest, earnest, independent and intelligent inquiry, anything like progress in medical science is an impossibility. It is universally admitted that among all the brilliant names that illustrate the earlier annals, if not the entire history of your profession, that of Galen stands pre-eminent. Yet, it would have been far better for the human family, perhaps, if Galen had never been born.

The blind, abject, almost idolatrous deference of his successors to his teachings, with all their crudities and absurdities, postponed everything like genuine progress in scientific medicine for centuries. They regarded his writings as the ultimate authority from which there could be no appeal, and rejected with disdainful scorn whatever appeared to be inconsistent with his *dicta*. In their vain attempts to reconcile the theories of their master with the phenomena of nature, they had but little time to interrogate herself, and still less inclination to pursue the study of medical science in those fields in which it can be followed with any assurance of success. Eschewing everything like originality of thought or independence of inquiry, they went on for more than five hundred years, stifling intelligent investigation and killing their patients according to the most approved methods of Galenian science.

I would warn you, however, that if it should be your fortunate lot to make any great discovery or improvement in the practice of your chosen art, or any very remarkable contribution to medical science, you should be prepared for a general howl of dissent from the less profound and more pretentious of your professional brethren, until it shall have received the approbation of their acknowledged leaders. I am not fully prepared to believe that the man who first suggested the practicability of carrying corn in both ends of the bag when going to mill, instead of the old practice of putting a rock in one end to balance the corn in the other, was actually mobbed by his indignant neighbors as a dangerous revolutionist; but I suppose it is really true that Galileo barely escaped a sound roasting for expressing the opinion that the earth moved around the sun, and not the sun around the earth. It is a fact, at any rate, that the disturber of ancient prejudices, or long-accepted opinions, generally raises a storm about his head, and nowhere has that truth been more frequently or more strikingly illustrated than in the history of the medical profession.

When Galen, at the solicitation of many of the most distinguished philosophers and men of rank, commenced a course of lectures in the imperial city upon the anatomy of the human system, the novelty of his teachings and the bold contempt with which he assailed the long-accepted fallacies of his predecessors raised such a tempest of indignant criticism among his professional rivals, that he was not only compelled to abandon the rostrum, but to get out of Rome. And when Vesalius, in the sixteenth century, defied the authority of Galen, which was still considered supreme, and destroyed by actual demonstration the credit of nearly all the learning to which the earlier masters had pretended; when he swept away the long-venerated rubbish of ancient error and laid the immutable foundation upon which the splendid fabric of modern medical science has been reared, he brought upon himself a perfect deluge of virulent reproach from even the most distinguished of his professional contemporaries. And you will perhaps be surprised to learn that among the foremost of his detractors was the celebrated Fallopius, concerning whom, I have no doubt, you have heard a good deal from your diffident but distinguished Dean, unless his lectures have been too much abridged by his characteristic taciturnity.

When Harvey first published to the world his beautiful demonstration of the true theory of the circulation of the blood, it is said that there was not a single physician over forty years of age, either in

Great Britain or on the continent, who coincided with his views. On the contrary his practice fell away from him, and he was for years the object of the extremest obloquy and abuse. Nor was it until after his experiments had been repeated, and his observations endorsed by many of the most eminent anatomists and physiologists of the period, that his theory was accepted by the far more numerous class of his brethren, who were profound in nothing but their ignorance of scientific truth, and their conceit of their own professional culture and ability.

And so when Dr. Ephraim McDowell published his modest account of his first ovariotomy, some eight years after it was performed, it was denounced as a falsehood, and its author held up by the leading medical and surgical writers of the day as a liar and imposter; and it was not until ten years after that the learned editor of London *Medico-Chirurgical Review*, who had been one of his most malignant satirists, had the grace to thank God that he had lived to ask pardon of the great pioneer surgeon of Kentucky for the injustice he had done him.

It is an ill wind, however, that blows nobody any good; and it is probable that the world is indebted to the intolerance of the medical profession during the fifteeth and sixteenth centuries toward any improvement or innovation in their own peculiar department of learning, for the initial step in the wonderful development of astronomical science which has taken place since that period. About the year 1500, a German physician, becoming disgusted with the bigoted deference to the doctrines of the earlier masters, which seemed to render an advancement in the philosophy or practice of his profession an impossibility, abandoned it and devoted himself to the study of mathematics. He soon detected the absurdities of the Ptolemaic hypothesis concerning our system of planets, and revived the theory of Pythagoras, that the sun was the center of a series of spheres, including our earth, which revolved around it, and also upon their respective axes. For thirty years he labored on the demonstration of that sublime truth, and, tonight, the name of Nicholas Copernicus, the great prototype of Kepler, Galileo, Newton, Herschel and Leverrier, remains written upon the star-decked vault of heaven in characters of ineffable glory, to be hymned by the spheres as long as they shall continue in their wondrous pathway through the skies.

I hope I have made myself clearly understood, urging upon you the importance of thinking and investigating for yourselves. Mark me: I would, by no means, advise you to tamper with the health or trifle with the lives of your patients by reckless or questionable experiments; far from it, indeed. You had infinitely better confine yourselves to catnip, cumfrey and elecampane for the sake of your own consciences as well as for their safety. I simply mean that, while you should act prudently, you should act independently; that you should not regard everything you see in the text-books as absolutely infallible, nor reject anything because it may not be backed by the *ipse dixit* of some recognized authority in the profession.

John of Salisbury, one of the most celebrated scholars and among the wittiest writers of the twelth century, has left as a sketch, in his Polycraticon, of the average medical graduate of his period, which I beg leave to read to you, in order that you may see the immense difference between them and some of the newly-fledged physicians of the present enlightened day. He says:

"They return from college full of flimsy theories to practice what they have learned. Galen and Hippocrates are continually in their mouths. They speak aphorisms on every subject, and make their hearers stare at their long, unknown and high-sounding words. The good people believe that they can do anything because they pretend to all things. They have but two maxims, which they never violate—never mind the poor; never refuse money from the rich."

We find an occasional survivor of this species even in our own age, and if there is one of you who has made up his mind to prostitute his sublime profession solely for the sordid purpose of accumulating lucre, he will be certain to take his place among them, and you will soon find him resorting to all the artifices of the knavish quack in order to magnify his own importance and to multiply his chances for "gathering gainful pillage."

On a county court day, when the streets are full of country folk, he will rush out of his office, fling his pill-bags across his saddle, mount his horse and gallop off on a suppositious call, as though life or death depended on his speed; and, after an hour or two, he will come galloping back again, run into his office, rush out again and scurry away in the opposite direction. He will be a prompt attendant at the most popular church in town, where he will sit "as demure as a harlot at a christening" until some impecunious emissary, whom he has hired for a trifling consideration to do so, hurries in with a most anxious expression on his countenance and calls him out just as the service has reached its most solemn point.

If he should happen to perform some trifling operation in minor surgery, he will have it paraded in the local newspaper as one of the most astonishing feats of the scalpel since the days of Antyllus or Heliodorus; but if he should venture beyond his depth, and cut off the wrong leg, or have his victim die under the knife, he will contrive to have as little said about it as possible, and satisfy the community that the patient's death was only a question of time anyway.

While constantly parading exaggerated accounts of his own superior learning and skill, he will lose no opportunity to injure his absent rival by insidiously depreciating his merits or openly misrepresenting him behind his back. If he should be called to a patient in the absence of the family physician, he will not fail to pronounce the medicine which the doctor has left a deadly poison, and then prescribe the same thing under another name. If a consulting physician should say, in the presence of the patient, that he might safely rely upon the "*vis medicatrix naturæ*," he will whisper to some officious friend of the sick person standing by: "That will kill him quicker than strychnine." In speaking with one of the unlettered multitude about his practice, he will never use a term his hearer will be likely to understand, if he can think of a technical synonym of "learned length and thundering sound." He will never prescribe such a thing as common poultice, but will recommend a cataplasm of certain ingredients. He will not even suggest a wash of ordinary salt and water; it must be a saturated solution of sodium chloride. As I have already said, however, I am happy in the conviction that none of the gifted and aspiring young men whom I have the honor to address to-night will ever condescend to the low artifices or be content with the degraded level of the vulgar sham, the mere pretender.

Mr. Sergeant Balentyne, the celebrated English barrister, on being asked what was the highest qualification for a Lord Chief-Justice, replied that "a Lord Chief-Justice should, in the first place, be a gentleman, and then, if he should know a little law it would be so much the better." And so I would say, while it may be necessary in the practice of your profession that you should know something about medical science, it is absolutely indispensable that you should be gentlemen! By this I do not mean that you should simply cultivate the graces and practice the ordinary amenities of courteous intercourse common to polite society, but that you should at all times, and under all circumstances, illustrate the heaven-inspired virtues of honest, earnest, noble Christian men. That you should spurn with indignant scorn the low, mean vices of envy, malice and evil speaking, and never suffer yourselves to be betrayed into anything that can degrade your manhood or cast the slightest stain upon the bright escutcheon of your honorable profession. Above all things let your demeanor toward professional brethren be candid, manly and just, and your deportment to your patients kind, considerate and conscientious.

I feel that I owe you an apology for having detained you so long, but while I bid you the heartiest God speed in your chosen career, I trust you will permit me to hope, that if you shall at some time in the great unexplored future that lies before you recall a single word I have spoken, by which you have been comforted or encouraged in the attainment of the success to which you aspire, you will not regret the courteous attention you have given me, and for which I tender you my profoundest thanks.

ORIGINAL ARTICLES.

STRICTURE OF THE URETHRA IN WOMEN.

Read in the Section of Obstetrics and Gynecology, at the Forty-first Annual Meeting of the American Medical Association, at Nashville, Tenn., May, 1890.

BY ELY VAN DE WARKER, M.D.,
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In this paper I limit the term stricture of the urethra to organic contractions in the lumen of the canal not caused by traumatism, incidental to her sex or the result of destructive or malignant disease. In a surgical sense, it is the same condition that we define by this term in the male.

I find it necessary to thus limit the disease, because the affection is supposed to be rarely found in women, that all manner of causes have to be enumerated in order to explain its presence. In the two most recent and elaborate monographs upon the subject, that by Fissiaux[1] and by Herman,[2] all manner of accidental conditions are invoked to explain the condition. When the causes of urethral stricture in women are reduced to two, specific urethritis and traumatism principally (Fissiaux), it will be clear to any one who studies it independently and free from the unfortunate bias of the authors, that this method simply perpetuates the prevailing error concerning it.

There are certain reasons why organic contractions of the anterior urethra in women should be expected, as the outcome of her functional life. If we examine the external genitals in women of various ages, some of the most marked changes will be presented by the picture of the urinary meatus and the urethral prominence. What in the virgin is small and compact becomes enlarged in the middle-aged married woman, so that it projects forward between the nymphæ and forms a large, rounded mass bulging downward into the vestibule. The urinary fissure has become irregular, with overlying flaps of the external mucous membrane, one-lobed, bi-lobed, or trilobed, in every variety of form. These changes may and do exist without any functional deviation from the normal.

These alterations are evolutionary in character, and are shared in by the other external genitalæ. The gland of the clitoris has become greatly en-

[1] Annales de Gynecologie, January and March, 1879.
[2] Transactions of the London Obstetrical Society, 1887, p. 27.

larged over the virgin form and its prepuce elongated; the nymphæ have increased many times in breadth and thickness, and projects beyond the commissure of the pudendum, and the myrtiform bodies occlude the vestibule. That the functional activity which is the source of this evolution may easily pass beyond the normal, is proven by the frequency that stricture of the urethra, or condyloma, angioma, caruncle, and irritations are found.

In the sexual act the urinary meatus and prominence are as much exposed to friction and contact as the urethral opening in the male. These organs in one sex have no exposure to morbid causes, that are not equally shared by the other, aside from gestation and pregnancy, which speaking mathematically, is a plus condition as against women. The practical outcome of this is that the woman who has not, at some period of active functional life, suffered from urinary distress, is very rarely met with; and further, I will boldly assert that every man who faithfully follows my method of urethral exploration will confirm, that urethral strictures, or contractions, sufficient to cause symptoms, are as frequently found in women as in men. I express this opinion in no spirit of arrogance or undue self-assertion, but I shall expect every man who offers an opinion to the contrary, other than what may be said hastily in debate, to do so only after he has applied to the study of this subject the modern and approved methods of urethral exploration. He must abandon his authorities and their text-books, which have nourished a most absurd error, and study this matter for himself from the general surgery standpoint. In the event that there may be some among you who have not examined the literature of the subject, but who may wish to know what gynecological authors have to say about it, I can well afford to give the brief space that this requires.

Skene, in his fifth edition, does not mention the subject. Emmet says that it is rare except as the result of violence. Among older English writers, Churchill says: "My own experience does not qualify me to speak as to the frequency of organic stricture of the female; it can not be very common, or I should have met with it. But I have met with two cases which I suppose to be spasmodic stricture;" and which cases he relates, and which were evidently cases of hysterical retention. West, McClintock, Sir C. M. Clark, Barnes, Baker, Brown, Tait, do not mention the subject. Graily Hewitt says it is rare compared to the other sex, and dismisses it in six lines. The later French authorities do not give it any mention so far as I have examined. The elaborate and painstaking German authors ignore the matter. Even Winckel, in a special treatise on the Urinary Organs of Women, in the "Handbuch des Frauen Krankheiten," gives it no consideration worthy of the name. Coming to more modern times in English literature, we find Hart and Barbour, Mundé, Gordelle, Brown, pay it no attention. In the ambitious monograph of Herman already referred to, and which aims to be scientific, the matter is very inadequately treated, and in a manner which proves that the author neglected to apply to his investigations the methods of modern urethral surgery; while the paper of Fissiaux, so far as it advances our knowledge of the subject, might as well have been written a generation past. In the "American System of Gynecology," our own Baker starts out with the remarkable statement that stricture of sufficient degree to give rise to urinary symptoms is rarely met with. It is very evident from this that I have a fair field all to myself, as negative evidence never yet proved anything. The mysterious part of the matter is how such a mass of negative evidence was ever able to group itself about a subject so easy of demonstration as this. The mystery is cleared up when we come to examine Skene's book on the "Diseases of the Bladder and Urethra in Women."

Dr. Skene gives more importance to the lesion than any other systematic writer, by admitting that it occurs often enough to demand attention. "The form of stricture that will most frequently come under your consideration," he says, "will be a contraction of the meatus urinarius, produced in many cases by too liberal use of caustics in the treatment of abnormal growths at the lower end of the urethra, or from vulvitis." It is in relation to the method of examination directed by Skene, who simply follows in the footsteps of his predecessors in a sort of traditional way, wherein lies the error. He directs that the passage be explored with a sound, using one so large that it will not pass the stricture, thus locating it, and then using a sound that will pass through it, the extent of the obstruction may be known. If a surgeon writing upon male stricture were to direct such a method of exploring the passage, here would be very few strictures of large calibre, as Otis calls them, that we would ever know much about.

It is by methods such as just described that the period of error has been prolonged. Now, there was a time within the memory of many of us when it may have been said that, in an exact and scientific way, we knew very little about stricture of the male urethra; and yet, concerning this, careful instruction had been given for generations. There came, however, with the use of instruments of precision, a period of more exact examination, which not only gave a more perfect, but a far wider range of knowledge. In this way an abnormal state was all but discovered and its outcome given its due value, for previous to this period, strictures of large calibre were, if known, given no practical importance. Previous

to this period the general surgeon gave about the same instructions concerning exploration of the male urethra that Dr. Skene has given for that of the female. It cannot be disputed that, so far as stricture in women is known and treated, it stands to day where the surgery of the male urethra did a generation ago. I date the knowledge of strictures in the male of large and small calibre, their number, location and extent, their consistency and dilatability, together with the calibre of the passage yet in a normal condition, to the invention and general use of the exploratory bulb, and urethrometer. Previously they were simply able to say that a urethra was strictured, provided the contraction was small enough. If we trust in urethral exploration in women to the sound, we simply learn that we have to deal with a narrowed passage, and we overlook strictures of large calibre entirely; whereas if we explore with the bulbs we learn not only all the sound can reveal, but also the extent, number and location of the constricted points, their firmness and dilatability, and the differential diameter of each.

Some attention has been given to the question, What is the normal size, or lumen, of the female urethra? I do not understand how a solution of this question can throw any more light upon its strictures, than a knowledge of the average diameter of the vagina would aid us to an understanding of atresia of that passage. The question is, not the diameter of the passage, but, is it free from disease; are there no contracting bands or inflammatory deposits that diminish its size, be they large or small? In the male urethra, Otis has tried to make an average of this kind of practical importance as a guide to the depth of an internal urethrotomy in a given size of the pendent organ, but I believe few surgeons cut according to Otis's table now. Those that I have seen do it, generally incised more extensively than was necessary, especially at the meatus. The accessibility and exceeding dilatability of the female urethra precludes the necessity of internal urethrotomy, and there is even less need here than in the male to establish a law of average. It is interesting, and may have its usefulness, to know something about the average normal. Dr. Herman, in the article referred to, makes an attempt in this direction. He employs an instrument that cannot be taken as a comparative standard like those made upon the French scale, which are not arbitrary numbers, but express millimeters in circumference. For this purpose he uses Hegar's dilators, which he describes as "cylindrical rods pointed like the small end of an egg," which must be conically pointed sounds. Even in the use of these imperfect instruments he used so much force, that on several occasions he "produced slight lacerations of the mucous membrane."

TABULATION OF DR. HERMAN'S MEASUREMENTS.

Hegar's Dilators.	Equivalent in English scale.	Equivalent in French scale.	No. of persons examined.
No. 7	12	22	55
" 8	14	25	11
" 9	17	29	21
" 10	18	30	15
" 11	Not given.	Unknown.	6
" 12	"	"	1

The conclusion is that in most cases the healthy female urethra will admit a No. 17 catheter, and nearly all cases a No. 14. In the above table the equivalent in the English scale is approximated upon the American, and I assume that there is no material difference. It is very evident, I believe, that beginning in the above table with Hegar's dilator No. 9, the observer used a dilating degree of force, as the fact of bleeding mucous membrane proves. Had he used a urethrometer or the exploring bulbs, the error of using too much force would have been avoided and his measurements would have had scientific value. This author makes gonorrhœa a very frequent cause, a fact that was overlooked by Winckel. He also regards the urethro-vaginal cellular tissue the homologue of the prostate gland in the male, from the fact that in aged women this septum is thickened and indurated, and this causes narrowing of the urethra. It is difficult to follow Dr. Herman to such a conclusion, and I believe that the majority of observers will dissent from such a comparison. If it were necessary to imagine such a homology, function and situation would suggest the vulvo-vaginal glands. I believe, on the contrary, that the urethral narrowing in aged women is due to the senile involution to be observed in all the genito-urinary apparatus of the sex.

In my own observations to test the calibre of the normal urethra, I noticed the liability to error from the extreme dilatability of the passage when in a healthy condition, an error more difficult to guard against in using the urethrometer than the bulbs. In the following table the measurements were made by the careful introduction of the bulbs, using no force that could put the tissues upon the stretch.

No. of cases.	French scale—millimeters in circumference at meatus.
20	23
18	24
24	25
9	26
18	27
16	28

This does not express the size of the urethra, but rather that of the meatus, at which point there is a slight narrowing. Beyond this point the measurements were taken by the urethrometer, and the increase in the calibre was represented by 1 to 3 mm.; but if the screw of the instrument was slowly turned, thus applying the dilating force gently, one or two divisions of the

scale could be added to the above without any discomfort to the woman. For this reason measurements must always lack the exactness that insures scientific value, except for those made at the meatus. Bulbs larger than 29 F. I found would not pass the meatus without dilating force, except in cases in which appearances indicated a morbid condition of the part. In my measurements, every case in which blood followed the bulb or urethrometer, was rejected as being in a morbid condition, or as having an excess of force used in the manipulation. There is not a case represented in my table, that the measurement would exclude the idea of stricture, or contracting bands, that is, the stricture of large calibre. This at least has been my experience, but this morbid condition is indicated by urinary symptoms more or less constant, or recurring at long intervals.

Several of the writers who give the subject any attention at all, appear to derive their standard of comparison from stricture in the male. To a certain extent no comparison is possible. Except as the result of traumatism, the impervious urethra or exceeding nervous stricture is not met with in women, but are often met with in men. In connection with an exceedingly crude method of examination, it is this standard of comparison which has so generally led gynecological writers astray on this subject. Further, a narrowing in men that will cause but a slight diminution in the current of urine, never retention, and but rarely dysuria, will produce all these symptoms in women. I believe this to be the true distinction to be made between the sexes in the symptoms of stricture. Women are exposed to all the etiological conditions that men are, plus a few others incidental to their sex, but these in no way contribute to what may be regarded as sexual difference in symptoms. From whatever cause, retention, incontinence, dysuria and strangury are symptoms much more frequently met with in women than in men, and in consequence slighter pathological changes will cause more active disturbance in the former. If strictures of large calibre in men have the pathological importance that such an accurate observer as Dr. F. H. Otis assigns to them, strictures of a like character have more serious import in women. What Civiale, in 1850, says of male stricture, "that the slightest obstruction in the urethra is able to produce the gravest symptoms," is true with enhanced force in women.

It is not necessary to reason any further from analogy. There is an established method of practice that will bear out the truth of my argument. A long established treatment of dysuria in women has been forcible dilatation of the urethra, an operation usually made with the finger of the operator. I have so treated these cases of painful urination many times; sometimes with success, and other times with failure. It was difficult to explain the contradiction in results. I have now learned that when I have succeeded in curing my patient I had to deal with a stricture of large calibre—in other words, I had treated a stricture by what in the surgery of the male urethra, is termed divulsion. Since I have begun habitually to examine the urethra with the exploring bulbs in all cases with urinary symptoms, I have never made the operation of forcible dilatation except I wished to examine the cavity of the bladder with the finger. In doing this operation in dysuria I have frequently felt the narrow constricting bands, but without really understanding their nature until I had studied the condition of the passage after the manner of Otis. It is possible to detect stricture of this size with the sound, as resistance is at every point alike, and from the size of the sound that you are able to pass, it does not appear that any stricture is possible. Free as was the opening of the urinary passage, the widely dilatable constricting bands were sufficient to keep up a constant fret of the mucous membrane. I have found these obstructions in urethras that would admit a 28 to 30 F. sound with but very little force, and followed by only a few drops of blood. In exploring, it is well to remember that it is always more easy, as well as less painful to the patient, to introduce a large sound than it is a large bulb. This constant condition of urethral irritation in this group of cases constitutes, I believe, a sexual trait in the different reaction of strictures of this character in the sexes. That which causes frequent and painful micturition in women and greatly disposes to spasmodic retention, will, as a rule, be intractable catarrh in men when situated in the penile passage.

It is remarkable how sensitive the bulbs are in detecting and locating stricture of wide lumen. Sometimes the constrictions are arranged in groups, and a No. 24 or 27 F. bulb will slip along in a series of jerks that offer but little resistance to the hand; but more usually one or two obstructions are found from the middle to the outer half of the passage. The lumen of the normal female urethra is not the same throughout its length. It is contracted toward the meatus, expanded in the middle portion, and contracts again toward the bladder, as may be demonstrated by the urethrometer. One must not, therefore, allow error to occur from the introduction of too large a bulb, which would move with more freedom at one portion of the urethra than another. With one that moves with but little force, the sensation of meeting one of these obstructing bands is so characteristic that there is but little danger of error. They differ in one important particular from obstructions of the same diameter in the male. In women they occupy but a small space longitudinally of the passage, while in the male half an inch to an

inch is sometimes involved. All the symptoms evoked by strictures more contracted are observed in those I have been describing. I know of no differential symptoms by which to distinguish the different degrees of contraction. The gravity of the symptoms does not appear to depend upon the extent to which the lumen of the passage is encroached upon, but rather upon the degree of the irritation existing.

Symptoms of functional disturbance due to stricture have their periods of exacerbation and intermission, so that the patient will give a history of frequent and painful micturition, with intervals of relief of a duration of days, and even weeks. Oftentimes the patient rises in the morning in a comfortable condition, with a renewal of the urinary symptoms toward the latter part of the day, especially if she has been much upon her feet, the disturbance lasting well into the night. The power of control is sometimes impaired, the patient being obliged to promptly respond to the inclination, otherwise there will be an involuntary escape of urine.

The form of stricture that I have most frequently met with, and one that produces the most acute symptoms, is the annular stricture of the meatus. It is a firm ring situated at the verge of the opening, and ranges in calibre from 13 to 20 F. They offer quite a solid resistance to the exploring bulb, which has sometimes to be pressed against the ring for a moment before it yields, and what is even more characteristic, presents about an equal resistance to its withdrawal. Some are of large calibre. I have noted one of 23 F. in which the urinary symptoms were very urgent, and which totally disappeared on the passage of sounds with very slight dilating force. The resistance offered to the withdrawal of the bulbous sound both in the annular stricture at the opening and in the obstructions further up the canal, is one of the most characteristic sensations to the touch presented by these delicate instruments. The treatment of these strictures at the meatus is quite painful, and cocaine ought to be used. In a very few instances I have divided the obstruction upward, but this plan gave no special advantage except in relieving the painful stretch at each passage of the sound.

Very small strictures near the meatus, but not involving the opening—the analogue of what we so frequently meet with in men—I believe are quite rare. In women such an obstruction nearly always involves the meatus. I recall one such case in which the meatus received with difficulty a No. 19 F. bulb and a firmer contraction half an inch beyond. The subject was sixty-two years of age, the mother of several children, and had suffered several years from difficult and painful micturition. In this case I divided the strictures, as dilatation was painful even under cocaine. From the thickened and inverted prepuce, the hypertrophied right nympha with its hardened and corrugated surface, and the general pigmentation of both nymphæ, I suspected long continued masturbation. A long time after the patient confessed that such was the case. This was interesting, as the urethra of this woman presented about the same condition met with in men who have long been subject to this vice.

Persistent retention due to the mechanical obstruction as a symptom, I have not often met with. I believe I would rather express myself to substitute retarded flow for retention. In one case in which a 16 F. bulb passed the meatus with difficulty, the flow of urine was very slow in starting, and the bladder was slowly emptied with a small reluctant stream. In this instance, before any exploration or stretching, the obstruction offered an opening not to exceed 12 F. to the flow of urine. This woman had had gonorrhœa about ten years previous to my treatment. If one looks for symptoms of mechanical obstruction in stricture of women, I fear it would be very misleading. Therein lies one of the obstacles to the general recognition of this condition in women. As a sex, she is continually subject to urethral and bladder symptoms, but without other indications of stricture, that the condition nearly always meets with some other explanation. What in man would inevitably lead to a urethral exploration, even on the part of a very ordinary surgeon, is never made in women, except in cases of exceptional severity.

Another condition sometimes met with at the meatus is what has been called eversion of the mucous membrane of the passage. It is very troublesome and difficult to cure. This is, in my opinion, simply a form of stricture. Cases so treated have made prompt recoveries. Its prototype in the male is the fusiform stricture of the meatus of Otis. This author states that it is rare in the male, and he applies the term congenital to it. In this sex the condition is not revealed except as the result of exploration. In women, however, it is not rare to meet with a rolling out of the mucous lining which presents at the meatus as a red irritable margin. When a full size bulbous sound is introduced, the protruded mucous membrane is pushed before it, and the resistance to its introduction ceases when the bulb is pushed through the ring. On withdrawing the sound, its point is caught by the ring of mucous membrane which is pulled out to its full extent, thus offering considerable resistance to the withdrawal of the bulb.

The point which I wish to impress is that this is essentially a stricture. Those of you who have treated the condition know how disposed it is to return even after the margin is pared or cauterized away. I believe that it is explained by the existence of an annular stricture at the meatus and a subsequent dilatation of the urethra be-

hind it. Of course, I do not allege that this may not occur from dilatation of the urethra without stricture; but the diagnostic use of the bulbous explorers demonstrating the obstruction at the meatus, puts the pathology beyond doubt. With or without excision of prolapsed mucous margin, permanent cure may be attained by gradual dilatation with the sounds. Two cases of this condition, both in middle-aged women, were cured by relieving the stricture at the meatus, with cure of severe urinary symptoms. In old women, in whom it is more frequently found in connection with annular stricture of the meatus, its cure is practically impossible without cure of the stricture.

I do not propose to take up your time with the detail of illustrative cases. The proof of the matter is so simple to everyone who will provide himself with a set of exploring bulbs, and habitually employ them in every case that presents with urinary symptoms, that I do not believe I can make my case stronger with the history of cases, as I urge all to test the accuracy of my statement. In the treatment of stricture the bulbs are of course not used. I make use of graduated steel sounds, the same that I used when in general surgical practice to treat male stricture. The action is two-fold—to dilate gradually and to cause the absorption of the constricting exudate, and that latter end is not attained by sudden and forcible dilatation. The treatment made two or three times a week, extends over a considerable length of time; but the relief given to the patient early in the treatment is very satisfactory. A dilatation of the urethra is no more important than the absorption caused by the passage of the sounds, it implies a more or less prolonged treatment.

The use of electricity as a treatment I have not had any experience with. Fissiaux states it has given good results at his hands, but I have found the use of graduated sounds so satisfactory that I have not been tempted into new ways. I believe that electrolysis so-called, in the sensitive female urethra to be a very painful method, and would not promise any more speedy or permanent results than dilatation.

In conclusion I again urge the employment of the exploring bulbs in all cases of dysuria, with the conviction that those who will faithfully follow my methods, earnestly seeking for the truth, will find ample verification of what I claim concerning the frequency of stricture in women, and the important part it plays in the disabilities of women.

THE UNIVERSITY OF BASEL, the only university in Switzerland that has excluded women students, has just decided to admit them to the medical department.

SOME OF THE VAGARIES OF THE GRIPPE.

Read in the Section of Practice of Medicine, Materia Medica and Physiology, at the Forty-first Annual Meeting of the American Medical Association, at Nashville, Tenn., May, 1890.

BY C. F. ULRICH, A.M., M.D.,
OF WHEELING, W. VA.

The influenza, or "grippe," as it is generally called, Protean in its forms and chameleon-like in its aspects, has made a flying trip through our country, and left its multiform impression upon our population. This strange disease enjoys as many titles as a European nobleman: influenza, because it exercises such a decided influence upon all the tissues and functions of the human body; *la grippe*, because, when it once takes hold, it rarely lets go its grip; *rheuma epidemicum*, because, under its dire influence, the universal nose and throat becomes a perennial fountain; *cephalalgia contagiosa*, because of the infernally Plutonian headache it induces; *fallette*, because, when attacked by it, we are driven almost to madness; *coquette*, because it plays with our feelings as a cat does with a mouse or a young lady with her devoted admirers; *petit courier*, because it runs from organ to organ, suffering none to escape, until we almost wish ourselves dead, to escape the torments of the dreadful disease. We might go on multiplying epithets *ad infinitum*, that have been applied to this polymorphous disease; but let this suffice as an introduction to a brief and unvarnished account of the strange antics of this Harlequin of diseases.

It is not my intention to attempt a scientific analysis of this strange visitor among us, which doubtless has been, or will be done during this meeting, by minds much better fitted for the task than your humble writer; desiring only to give a brief sketch of the unwelcome visitor as it appeared in our midst. I cannot give statistics, having none at my command that are reliable; I cannot enter into a scientific discussion of its etiology, because I have not fathomed it; its symptomatology, because that would include a description of all known diseases; its diagnosis, because it resembles all other diseases in some of its forms; its prognosis, because it is as uncertain as the winds. Neither can I say much of its treatment, because, though called upon to treat several hundred cases, I have not succeeded in establishing any fixed principle of treatment, but have simply proceeded in a tentative manner, treating the symptoms as they arose. Therefore, knowing nothing of its causes, though without doubt the bacillus will sooner or later be discovered; but little of its treatment, having only proceeded empirically in the management of the cases that have come under my observation, I have thought it best to speak of the whims and vagaries the disease has been guilty of as seen in the valley of

the Ohio, and more especially in Wheeling and the immediate vicinity.

When it was first announced that the influenza or grippe was upon us, many of the physicians treated the idea with scorn. They said it was nothing more than a catarrhal affection of the mucous membrane, due to the peculiar changeableness of the weather, for you all remember that last winter, in the strict sense of the word, was no winter at all, the weather resembling that of spring more than anything else. Whenever, in December, 1889, a physician pronounced a case "influenza," it was said of him that he was taking advantage of the prevailing panic, to cover up his ignorance, or save himself the trouble of investigating, by pronouncing the case "grippe." Many said: "Oh, they are only frightened by the reports from Europe, and imagine that the terrible disease ravaging that Continent is upon us; while we have really nothing but a series of bad colds from the vicissitudes of the weather." But soon a change came o'er the spirit of their dream. Persons who were seized by the fell destroyer, whether physicians or laymen, confessed their error, and admitted that there was such a disease, and that it was unlike anything they had ever felt before. Having experienced its horrors myself, I can speak feelingly upon the subject. Imagine that you have an iron band placed like a hoop around your brain; that this band has a peculiar screw-like attachment by which it can be tightened. Then suppose that some malignant hand has hold of that screw, and is turning it with fiendish joy until your agony is almost past endurance. This is the first onset of the grippe, from which it doubtless derives its name. Let no one tell me that it is merely a catarrhal affection of the mucous membrane! Those whose brain has been held as in a vice by its relentless grip, know better. There is something more: there is undoubtedly an inflammatory affection of the meninges of the brain and medulla oblongata, acting upon those organs very much as a bone felon does upon the nerves of the finger. This is the initial symptom of almost every case of grippe. But what follows is as various as the catalogue of diseases. This monster has the wonderful faculty of penetrating every weak spot in the human body, rooting up old and almost forgotten complaints, bringing them again to the light of day. Almost every ill that human flesh is heir to is sought out and reproduced by this dire disease. Persons who have been afflicted with catarrhal trouble (and who is there that has not?) have nose and throat turned into a flowing fountain, and cough until they choke in the endeavor to throw off the bronchial accumulations of mucus. One who has been affected in times past with gastric catarrh or intestinal trouble, as soon as the dreadful grippe lays hold on him, is at once seized with pains and cramps in the stomach, retches and vomits, unable to retain the food which his appetite has induced him to take; or is attacked with colicky pains and perhaps diarrhœa. Has one been formerly afflicted with rheumatism and supposed himself entirely relieved of it; with the first onset of the grippe all his long forgotten pains are on him again, and his rheumatism is again in full possession of his body.

I will mention one case as an example. A friend of mine who, eight years ago, had gone through an attack of rheumatic fever continuing thirteen weeks, but had not been troubled by the malady since, sent for me one day, and I found her stretched in a helpless condition on the bed, unable to move a limb and suffering all the horrors of rheumatism. On questioning her closely, I found that her attack began with that furious pain in the head which characterizes the grippe. Treating her with that fact in view, I succeeded in relieving her in a few days.

A member of my own family had had typhoid fever three years ago and, as frequently occurs, was affected each succeeding year with threatening symptoms which never materialized. But during the prevalence of the grippe, she was attacked by the relentless monster; immediately the typhoid condition was developed and she went through all the stages of the typhoid fever, with, however, decided modifications of the symptoms.

One peculiar case occurred in my practice during the epidemic. A woman had gone through a course of primary and secondary syphilis; but supposed herself entirely cured, having seen nothing for a number of years. During the winter just past she was seized with the grippe, and the old eruption made its appearance again, being especially malignant on the mucous tissue of the mouth, tongue and fauces. I do not make this a typical case, it being the only one of the kind seen by me; but it goes to corroborate the inference drawn from the others.

Women who had suffered from disturbances of the menstrual function and supposed themselves entirely cured of the trouble, upon being attacked by the grippe, experienced a return of the old symptoms and found themselves as bad as ever. Such troubles as nasal and pharyngeal catarrh, gastritis, enteritis, cystitis, etc., being reproduced by an attack of the grippe might be explained by the old theory that it is essentially an affection of the mucous membrane, and that those organs which had gone through such diseases before, being thereby rendered more sensitive and susceptible of inflammation, were the first to feel the weight of the attack. But how shall we explain the rekindling of other diseases: typhoid fever, rheumatism, neuralgia and the host of other diseases that are reawakened after a Rip Van Winkle sleep of many years? What occult power exists in this mysterious agent that is able to resuscitate the dormant powers of a disease that was supposed

to have been long since buried beyond the possibility of resurrection? It certainly is something more than a mere affection of the mucous membrane. There is an occult mystery in the vital processes of health and disease, of growth and decay, that we are as yet unable to fathom, investigate as we may. We know, or think we know, that all the functions of the body originate in and are regulated by the cerebro-spinal and ganglionic system of nerves.

Now, any disease that has such far-reaching influence as to simulate almost every known malady, or to rekindle it when its fires have been extinguished so long as to be almost forgotten by the sufferer, must have its seat in the fountain of all vital action—the brain and the nervous system. It is a well known principle that all moving bodies travel in the path of the least resistance. When the cloud bursts and the rain falls in irresistible torrents on the mountain tops and the water rushes with mighty force down the steep sides, it always selects the beaten paths and gullies made by former rains, where its course is the easiest, meeting with but little resistance. The same principle holds good in disease as in everything else. When the brain, the great electric battery of the human body, becomes diseased and sends its unhealthy currents along the telegraphic wires known as the great network of nerves that permeate every organ of the body, the same rule will be observed, and the diseased conditions will be conducted to the places that have been previously affected. When we take this fact into consideration we can easily account for the otherwise mysterious and inexplicable phenomenon of such a variety of diseases, and such a multiplicity of symptoms all springing out of the grippe. It is true, when we have arrived at this solution, we are still in the dark and not much wiser than before; for we do not know the nature of the enemy that is attacking us, and have not ascertained his vulnerable point. Nevertheless, we have succeeded in locating the trouble and have discovered to what point our main attack must be directed.

We must fight the enemy in his stronghold and, if we succeed in conquering him there, everything will be safe. But if we fail in that, the separate diseases that spring out of this source must be combated, and a serious contest, with doubtful result, is to be expected. The modern antipyretics—antipyrin, antifebrin, phenacetin, to reduce the exalted temperature and control the cerebral excitement; aconitine to retard the great rush of blood which overwhelms the brain—these have been, in my hands, powerful engines for good in the first onset of the disease. For the mucous inflammation which follows and sometimes accompanies this first stage, I have found the hydrastis canadensis, in the form of the colorless fluid extract, of most wonderful efficacy. If, however, we fail in destroying the root of the evil, it behooves us to make a long fight and beat the enemy out of all his hiding-places, which sometimes tries our skill and patience to the utmost limits. Our treatment must then be the same as though we were dealing with the idiopathic diseases. But I will not venture to say more concerning the treatment; nor do I insist upon the absolute correctness of my theory regarding the nature of the disease.

I merely throw out these few suggestions as the result of my observation of about 300 cases that have come under my treatment since the 1st of January, hoping that my crude ideas will set some of our brain-workers to thinking and cause them to develop ideas that will enable us not only to combat this dreadful disease, in case it should visit us again, but also help us to explain many morbid phenomena that as yet are as a sealed book to our comprehension. It has often been said that afflictions are blessings in disguise, and we who have been afflicted, have scoffed at this and called it the ravings of a cranky preacher. But when such an epidemic as we have just passed through, and with the sequelæ of which we are still battling, induces us to investigate and look deeper into the causes of things than we have done heretofore, the benefit to future generations is not to be calculated.

EAR COMPLICATION FROM CHRONIC CATARRHAL INFLAMMATION OF NOSE AND THROAT.

Read in the Section of Laryngology and Otology, at the Forty-first Annual Meeting of the American Medical Association, at Nashville, Tenn., May, 1890.

BY W. I. EDWARDS, M.D.,
OF NASHVILLE, TENN.

In the short space of twenty minutes allowed to us to read a paper of any importance, we can merely give a few hints or outlines of the intention of our subject, and therefore cannot do justice to the subject or to ourselves, so I will only give a partial and brief notice to the anatomy of parts involved, and to treatment.

In thinking over the various troubles that may arise from catarrh of nose and throat, I find none attended with more pain than non-suppurative inflammation of middle ear. This form may call for prompt and immediate action from the very nature of its severity, and in order to discuss it intelligently we will have to look at the anatomy of the parts involved, as well as the diagnosis, prognosis and treatment.

First, we will look at the nose, and we find both cavities lined with a mucous membrane. This membrane also lines the pharynx, larynx, and Eustachian tubes.

Now we have traced the same membrane from the nose to throat and inner ear. And it is from

the continuity of this membrane that we have ear trouble from catarrh of the nose and throat, which may go on for years with but little trouble, but it is only a question of time when it may prove very serious to the sense of smell, taste or hearing, and the party may at any time contract a new cold of the chronic form, which may give excruciating pain in the ears, and then summons the family physician, who drops a few drops of laudanum and sweet oil into the ear, and tells the patient that it does not amount to much, that it is only earache,—of which they are fully aware, for it is an almost intolerable pain, and often prostrates the most robust men. They, too, often allow the disease to go on and not only rupture the drum, but involve the mastoid cells, which may necessitate trephining; while a careful diagnosis might have defined a different course of treatment and prevented breaking down of the drum, necessitating impairment of hearing, if not total loss; besides the very great pain, and the following discharge, which may prove very annoying.

We also find in chronic catarrh, hypertrophic rhinitis, which involves the mucous membrane and turbinated bones. These bones and tissues become so much involved that it is difficult for the patient to breathe through his nose; often one side will close for a few moments and then open, and the other side close; or we may have hypertrophy of one side and atrophy of the other.

When we have a hypertrophied condition of the nose, we may also have the same condition of the Eustachian tube, causing tinnitus aurium, and impairment of hearing. But the most distressing condition to the patient is the annoyance of the ringing noise in the ears, which often causes loss of sleep and even impairs the mind. And again, we may have, from an abraded surface of the mucous membrane from scabs forming, a polypus formed that may close one side of the nose, or may have one or more on both sides, cutting off all air from the Eustachian tubes, and from pressure, inflammation, and the want of the physiological action of air, we may have pain, tympanitis and impairment of hearing, and all of these to a very distressing condition. I will report a few cases:

Case 1.—Mr. G., aged 50, had been suffering from catarrh for forty years. On examination I found fibromata, or fibrous polypi, in both sides of the nose, protruding from anterior orifice of nose, and extending back and filling the nose, distorting the face; nose looked more like a frog than a nose; tumors extended down the throat; these had been removed three or four times with forceps and cold snare, in the space of thirteen years. His health was broken down, impairment of hearing, with pain in ears, with occasional discharge. I gave tonics, built the patient up as well as possible for his condition, and then removed polypi with galvano-cautery; polypi was so large could not use wire loops, and had to use a cautery knife to remove a part before using loops. Patient being very weak, made two sittings; had but little lost; kept up the tonics, used local treatment, consisting of thoroughly cleansing the parts with biborate and bicarbonate of soda, aqua, carbolic acid in warm camphor water, then spraying the nose with pinus canadensis, carbolic acid and fluid vaseline. Patient made a rapid recovery of health, discharge from ears ceased, all pain relieved, and his hearing restored.

Case 2.—Mr. L., age 62, had been troubled with catarrh for most all his life, and had suffered with severe earache, and loss of hearing in one ear, with distressing ringing noise. I found exostosis of turbinated bones of one side, and ecchondromata or cartilaginous tumor of the other. Removed this with the galvanic cautery snare without loss of blood, and removed the exostosis of the other side with dental skill, and smoothed the surface with forceps and galvanic cautery knife. Used the same after-treatment of this case as the other reported. Patient made a good recovery of hearing, relieved of tinnitis aurium, and was relieved of the catarrh.

Case 3.—Mr. C., age 71, had been suffering from catarrh for fifty years, attended with all the annoyance of difficult breathing through the nose, scabs forming, spitting, ringing in the ears, and at last was attended with violent pain in the ear, side of face, and head. I was called out of the city to see him; found patient prostrated with high fever, and almost intolerable pain, with five physicians attending him, watching and expecting him to die. Patient had lost power of speech and not able to raise his head. I found temporal and mastoid bone very much involved. I diagnosed pus in mastoid cells, with rapid absorption of pus to brain. I advised trephining; was opposed by some of the physicians, for the reason that they thought he would die in a few hours, and might die while operating; however, the family left it to me. I operated at once and removed a large quantity of pus. Patient slept well that night, was able to sit up in bed next morning to eat his breakfast, and was able to come to Nashville for regular treatment for his catarrh in ten days.

Case 4.—Miss F., age 18. I was called in consultation with her family physician, who had been treating her for a week for earache; found the young lady prostrated with pain in her head and ears, had high fever, could neither eat nor sleep. I diagnosed catarrh of inner ear, with pus in the mastoid cells. I found a hole in drum of ear, but no discharge. History: She had catarrh of nose and throat, and about one year before this attack she had a severe spell of earache, followed by a discharge, which only lasted for a few days. I advised operating on the mastoid

bone at once; physician opposed it. I told them it would have to be done, and the sooner the better, and when they wanted me to let me know. On the next day I was called for to do the work. I operated by cutting down on the bone with a free incision, and probed through the periosteum into the cellular bone, and removed a large amount of thick pus. I syringed the cavity thoroughly with a warm solution of carbolized camphor water, and put in a tent. Patient slept well that night; removed tent twice a day for a week, at which time she was able to come to my office for further treatment of the catarrh of the nose and throat.

Case 5.—Miss F., age 15. Had catarrh of the nose for three years; could not breathe through the nose at all; could only hear watch when pressed to ear, with very distressing ringing in the ears. I found sessile fibrous polypi, which had been removed one year before. I could not reach the base of these tumors through the small contracted orifice, and decided to do Rouge's operation. I gave ether, and dissected the upper lip and nose proper from their points of attachment on the superior maxillary bones, then drew the detached portion upwards, then the anterior nasal cavities were fully exposed, and tumors easily reached. Removed them with galvano-cautery with loss of but little blood, adjusted the nose and lip, which were held in place with firm bandage placed on upper lip, and extending around the head. It healed rapidly and the patient recovered with all the necessary after-treatment. Hearing restored to normal condition, and no disfiguration of face or nose, which is a very great consideration to young ladies. And the doctor who would dare disfigure one of those lovely creatures, just to save time and trouble to himself, is not worthy of the title which we all have the honor to bear. For our calling is second to none in its noble and life persevering efforts to restore the sick, heal the afflicted, and point them to the great High Physician of all, whose ever-watchful eye is on doctor and patient alike, and to whom we all have to give a strict account of our deeds, good and bad.

623½ Church Street.

SOME THOUGHTS ON INEBRIETY.

Read in the Section of Medical Jurisprudence, at the Forty-first Annual Meeting of the American Medical Association, Nashville, Tenn., May, 1890.

BY J. F. AXTELLE, M.D.,
OF HARTFORD, CONN.

Fred C., æt. 37, came to this city from Nova Scotia twelve years ago, a bright, manly young fellow, and secured a situation as salesman in one of our leading dry-goods houses. He was liked by all who had dealings with him, and was advanced from time to time by his employers. Soon he got to going out evenings, would drink with a friend when asked, but did not care for it otherwise. This went on for about two years; then he found that when he drank once he wanted more, and would keep it up for two or three days, be sick for a week, and would drink no more for six months. When on some special occasion he would again take a drink, he would then keep it up as before.

About this time he became engaged to be married, but the parents of the young lady objected, having heard of his habits, but finally consented if he would not drink for a year; he accepted the situation and won his bride, but on the night of his wedding got drunk, and kept so for two weeks. From this on for two or three years he would average four sprees a year. About this time he lost his situation. He went to Boston, but became so bad that his wife had to leave him, and came home. He was again thrown out of employment, came back to Hartford, went to work for his old employer, but could not keep sober a month. He soon went through quite a little property which was left him by his father, could not support his family, and his wife's parents had to take her and her child to their home.

About a year ago the wife obtained a divorce for non-support and intemperance, and he then made an unsuccessful attempt to commit suicide by taking laudanum.

Last week I signed papers to have him sent to an insane asylum, and while signing the paper, the thought came to me, why could it not have been signed ten years ago? Has a man the right to be a drunkard? If we admit that he has not, we are ready to proceed with the remedy; but all will not admit this position. They cry out liberty, individual liberty, and the right of the individual to do as he pleases will be forever their watchword. Has the individual such a right? Has he the right to disgrace his family, and to impoverish his wife and children? Has he the right to have children to inherit his weakness?

Instances might be selected of men without family or ties of any kind, and the position taken, that no one is hurt but themselves, but how is there to be any security that they will not ultimately commit some crime, or at least become cares to the public as lunatics or paupers? It seems to me that the unincumbered individual has no right so to live as to damage society and become a burden to the public. It is sheer madness to claim the right of the individual who has a family to drink to excess.

Drunkenness, inebriety, dipsomania, or whatever scientific term we may be pleased to give to the habit of excessive drinking of alcoholics, will be considered and regarded as a disease, as we regard insanity, and the individual so afflicted will be treated and cared for as though he were actually insane.

In many, if not all, public and private asylums, there can be found men and women who are insane in no sense except one habit, and who are treated as insane, yet no one seems to object to it, and the law winks at it. This fact alone shows the drift of unconscious public sentiment, and shows that society does regard such persons as practically insane.

It would perhaps astonish the criminal lawyers to know that a large part, perhaps a third, of the inmates of our asylums for insane, know right from wrong as clearly on most subjects as the best of us; but the trouble is to keep from doing the wrong.

Why should not the man with an ungovernable habit, which will lead him and all that are dear to him to sure destruction, be regarded as powerless to act for himself, just as the suicidal maniacs? Have his children or his friends no rights? Has his wife no legal or moral status? Shall he go on procreating unfortunates like himself, to in time, perhaps, fill poor-houses, jails and asylums?

The strong arm of a benign and merciful law should stop him, should declare him unsound, and place him in confinement, before he has destroyed his property and himself.

CURIOSITIES OF HOMŒOPATHIC PHARMACY.

Read before the Medical Society of the District of Columbia, April 23, 1890.

BY ROBERT REYBURN, M.D.,

PROFESSOR OF PHYSIOLOGY AND CLINICAL SURGERY, MEDICAL DEPARTMENT OF HOWARD UNIVERSITY, WASHINGTON, D. C.

Having recently obtained a copy of the circular and price list, issued by a dealer in higher potencies residing in New York City, I desire to impart to the members of this Society and the profession, some of the information therein contained. This document is a printed pamphlet of thirty-two pages, and is entitled "Catalogue of Morbific Products, Nosodes, and other Remedies in High Potencies." These remedies are for sale at No. 13 W. 38th St., New York City. By Samuel Swan, M.D.

Glancing over the catalogue, on page 16, we were struck by one article of the materia medica, kept for sale and called "luna, or moonlight." How in the world is this obtained, and what are its properties? Astronomers have long disputed as to whether the rays of the moon possessed any heating power, but why need they any longer be in doubt, when they may be bought by the vial full, and seen and tasted by ordinary mortals?

On page 20, we find three species of *pediculi* (or lice) on the list of remedies to be dispensed, namely: *pediculis pubis*, *pediculis capitis* and *pediculis corporis*. These minute animals we only expect to find on uncleanly persons, and the idea of swallowing them, or a preparation made from them, no matter how dilute, is rather startling to the uninitiated. The *pediculis corporis*, by-the-way, has a note in brackets after it, stating that this special lot came from Boston. The inquiry then arises in our minds, Why is this? Are the Boston *pediculis* more voracious, or of larger size than those of other cities? What is the cause of their superiority? Unfortunately, the vendor of these delectable preparations does not condescend to inform us upon these points, so we are compelled to remain in ignorance.

On page 1 we find on the list the name "*acarus scabies*" translated "lice insect." As the *acarus* mentioned is the one found in the disease known as the itch (in common parlance), and is not the *pediculis*, there seems to be a (H) itch in the Latin; but trifles like this need never daunt the swallower of preparations like these.

But, thank Heaven, there is on the first page one familiar remedy, viz.: "*adeps anserina*" (goose grease). How well do we remember the vile odor of this substance when applied externally to the neck in our youthful days. To paraphrase Hamlet, "The offense was rank and smelt to Heaven." Never did we imagine we should see it prepared in "High Potencies" and given in granules.

On page 15, "*lachryma filia*" are defined as "Tears from a young girl in great grief and suffering." In ancient Rome small crystal or glass flasks have been found called "lachrymalia," which are said to have contained the tears of the mourners. Were these "*lachryma filia*" obtained from such sources, or are they the tears of some modern damsel, mourning, perhaps, like Miss Flora McFlimsey, because she had nothing to wear, or in utter desperation from the lack of a spring bonnet, or it may be crossed in hopeless love?

The explanation of "*flavus irides*" on page 11, is "yellow ray of the spectrum." Here is bottled sunshine with a vengeance! Photographers have long desired to fix the fleeting rays of the sun, and make their pictures glow with the colors of nature, and here we have them prepared and fit for internal medication. Would that we knew the secret of this preparation! One thing is certain, if we *must* swallow globules, it would be much pleasanter to think of swallowing bottled sunshine, than a preparation of *pediculis corporis*, even though they were labelled as coming from the city of Boston.

On page 6 we find, "*carbunculus* on neck of swan very severe." We are not told whether the carbuncle was very severe upon the swan, or whether the pus obtained from it has been very severe upon the unlucky patient who takes it—perhaps both statements may be true.

"*Fel gryllus Americana*" (page 11), or "Brazilian cricket," is said to be beneficial for "sup-

pression of urine with or without pain," and this important fact is also stated, that "a boy who had chills and fever swallowed a live cricket and never had a chill afterwards."

On the first page several dainties are provided for lovers of preparations of the high potencies. One is "*adenia*," or "glands from a person suffering with Hodgkin's disease;" a little further on is the "Ailanthus bug," an insect found on the odorous though unfragrant Ailanthus tree. On the same page "Albumenurea" is defined as "renal albumen," or in other words, the putrid and disgusting products of the decomposition of the human body, as found in diseased urine.

On page 2, "anthracin" is said to be "pus from a carbuncle." On page 4 are two delightful compounds: one is from the *Blatta Americana* or "American cockroach," and the second is a more distinguished member of the same family, namely: "*Blatta Orientalis*" or "East Indian cockroach." Farther down the same page is "*Buboin Syphilitica*" or "pus from syphilitic buboes." On page 5 are a number of preparations of calcarea from different parts of the body, as "*calcarea renalis*," or "stone of the kidney," and "*calcarea*" from the lungs and bladder. On page 6 we have three preparations made from the different varieties of catarrh to choose from, viz.: catarrh of the intestines, catarrh of the bladder, and catarrh of the nose. In this case you certainly "pays your money and takes your choice."

Page 7 gives us a little ray of hope that we may not be called upon to swallow any more such vile compounds, for there we find "*cerulia irides*" defined as "blue ray of the spectrum," but as if to dash our newly found hopes to the ground, immediately beneath is given a preparation made from the "chancre of syphilis."

Page 8 gives a remedy for constipation in newly born infants, viz.: colostrum, found in their intestines previous to and after birth. Page 9 gives preparations of two varieties of poisonous snakes, viz.: *crotalus horridus* (rattlesnake) and *crotalus cascavella*. On the same page is "*crusta lactea*," commonly called "milk crust," and found on the heads of sickly or uncleanly babies. Farther down on the same page are preparations of diabetes mellitus, and also of the serum found in cases of dropsy.

Pages 10 and 11 give preparations entitled "*electricitas*" or electricity, and "*galvanismus*" or galvanism. It has been said of our countryman, Franklin, that he brought down the lightning from Heaven for the service of man, but our homœopathic brethren can do more than that, they can make it edible and drinkable for ordinary mortals.

But time fails me, and I can only enumerate a few of the choice morsels obtainable in the high potencies: "*hippozinine*," a preparation from the glanders; "*lyssin*" from hydrophobic patients; "*osteo necrosis*" from necrosed or dead bone; pus from abscess of rectum, and caries of heel, pus from septic abscess.

Page 22 gives us "*rubrum irides*," or red ray of the spectrum, and thus completing the list of rays of light, used in the manufacture of their globules. On page 23 we find four varieties of cancer served up to us, viz.: of the breast, uterus, bowel and face.

Page 25 seems to show that Dr. Brown-Séquard's so-called elixir has been anticipated, for we there find two preparations, one "*testiculo gallinæ*," or testicle of the fowl, and "*testiculo muliebris sinista*," from the left ovary of a woman.

Many other preparations might be given, but I will conclude by giving an extract from the note after page 30. Dr. Swan says that the plan of sending grafts has been adopted, viz.: "If a graft is put into a vial filled with unmedicated pellets, and corked, the whole mass will be medicated in half an hour." Farther down on the same page he says: "When a vial of medicine is nearly emptied, fill it with unmedicated pellets and you will not have to purchase the remedy a second time."

THE CLINIC.

A CLINICAL LECTURE.

Delivered at St. Luke's Hospital, March 26, 1890.

BY HENRY T. BYFORD, M.D.,
OF CHICAGO.

Gentlemen:—As this is the last time I shall meet you here, I shall naturally have more to say and less to do than usual. The amount of practical work to be done during the season, and the limited number of clinic hours at my disposal, twelve in number, allow of little time for talk.

ABSCESS DISCHARGING INTO PERITONEAL CAVITY.

The case now upon the table is exceedingly interesting, for the patient may be said to bear a charmed life. No cat, thrown from a shot tower, ever landed on its feet more triumphantly than does this woman after passing through the extremest perils of the knife. She has been twice within the shadow of the valley of death, yet a high temperature never came to her, nor has a good appetite ever gone from her.

Three months ago my colleague drained a peritoneal cyst situated in the lower abdomen. The cyst wall promptly sloughed off and gave rise to the most foul-smelling, septic and troublesome discharge imaginable. The abscess walls were made up of intestines matted together and had not, after three months, ceased pouring out large quantities of pus. But for the patient's prodigious digestive powers, she would undoubtedly

have, ere this, been forced to obey the summons that awaits all men. Three weeks ago I attempted, with the advice of my colleague, to establish better drainage, in order that the tax upon the patient's system, and coincidently upon the commissary department of the hospital, might be lessened.

You will remember that upon enlarging the opening, and attempting to make a counter-opening in the left iliac region, the abscess wall parted asunder, and with its residuum of pus and abundance of granulation débris entered the open peritoneal cavity. Not having expected to invade the sacred precinct of that cavity, I had taken no unusual antiseptic precautions either with regard to the patient, the room, the assistants or myself. All hands, sponges, instruments and vessels had been smeared with the pus. There was, however, nothing left but to go ahead and treat the peritoneum on the same principles as an open abscess in any other part of the body. Consequently I cleansed my hands, called for hot water from the faucet (as sterilized water was not prepared), and washed out the peritoneal cavity most thoroughly. A large perforated rubber tube was then passed from the opening in the iliac region at the left border of the suppurating surfaces, through an opening made in the recto-uterine pouch into the vagina and out at the vulva. The pus-secreting area above was packed with an abundance of iodoform gauze extending slightly beyond it all around. Dry aseptic dressing over both ends of the rubber tube and over the iodoform packing completed the operation.

The patient was sitting up with the bed-rest eating a hearty dinner on the seventh day. To-day there is nothing left of the abscess but a narrow sinus extending just under the abdominal wall from the median line incision two and one-half inches toward the anterior iliac spine. I have attached a very small rubber tube to the large one, and now draw it through to leave in place of the large one. As there is practically no discharge I will remove this one in a few days, and send the patient home, where a change of scene and diet will complete the cure.

ENUCLEATION OF OVARIAN AND TUBAL ABSCESSES, MICKULICZ DRAINAGE.

The iodoform tampon, or Mickulicz drainage, is one of the most valuable of the later improvements in the technique of peritoneal surgery. What could have been more brilliant than the action of the gauze in this case, or the almost parallel case operated upon before you, two weeks ago. In the latter case, after enucleating diseased appendages, including two large abscesses, you will remember that the oozing from the intestinal walls, broad ligaments, posterior surfaces and bottom of the pelvis on both sides threatened, if not promptly checked, to destroy our already exhausted patient. I made a sack of iodoform gauze to fit the interior of the pelvis and packed it with gauze, whose magical touch immediately transformed the discharge of blood into serum, and the condition of the patient from one of considerable alarm to comparative unsolicitude. The gauze was removed little by little each day, in order to allow the intestines time to fill in the evacuated space. The last gauze was taken out on the eleventh day without any unusual bad symptom having occurred. At present there is an opening two-thirds of an inch deep, one-half wide and one inch long, which has not yet shown the least disposition to suppurate, and whose walls are as clean as a freshly cut surface.

THE HEALING OF OPEN WOUNDS WITHOUT SUPPURATION.

The secret of healing a wound without suppuration is really known to but few, although the principle is known to all. The principle involved in the method I use is that germs cannot develop without moisture, and the whole secret consists in keeping the wound dry. But "there's the rub," as Shakespeare would have elegantly expressed it. Nearly all surgeons use powders and medicines and completely fail. An antiseptic powder does not keep large raw surfaces dry, and, under the influence of moisture, decomposes, becomes inert and actually promotes suppuration, for it buries itself in crevices and folds, from which, with its adherent septic material, it cannot be dislodged without being washed with that moisture for which the imbedded germs are confidently waiting.

The way I do is to pack the cavity loosely with sterilized gauze if it be large, or with sterilized absorbent cotton if small, and use a dry aseptic dressing over all. Neither iodoform nor any other powder should come between the packing and the dry gauze over it, for powder interferes with efficient capillary drainage and the all essential drying sterilizing process. The packing should, in extraperitoneal wounds, be changed two to four times daily, according as the discharge is serous or purulent, until the packing is no longer wet through, then once a day, then once in two days until the dried surfaces have contracted. As long as the discharge is purulent or abundant I wash the cutaneous edges with alcohol at each dressing to keep the skin clean. The cavity is merely dried out thoroughly with absorbent cotton or gauze, and neither medicine nor moisture allowed in it. In hospital wards where serous cavities are frequently opened, this method is invaluable, since it enables us almost to do away with suppuration and its dangers.

TRUE PELVIC ABSCESS.

The case of the patient now being anæsthetized is the historical, old fashioned, antiquated, but by no means extinct variety of pelvic abscess, in

which the entire connective tissue of the pelvis is involved. It originated in an acute attack of some kind several months ago, and was evacuated a few weeks afterward through the vagina. Its origin may have been from infection through the uterus and Fallopian tube, a hæmatoma, or from an ulcerating abscess of the tube or ovary discharging into the connective tissue. Infection may in some instances come from inflammation or ulceration of the rectum.

Upon vaginal exploration I discover a hole smaller than a pin's head through which pus may be squeezed. It is, as you can see, half way between the vaginal entrance and the cervix, on the recto-vaginal septum. With sharp-pointed scissors I make an opening large enough to admit a probe into the abscess. I now slit up the whole sinus along the probe making an opening large enough to admit two fingers. By digital examination I find almost the entire pelvic connective tissue excavated, although abundantly fringed and columned with soft granulation tissue, so as to interfere somewhat with the free evacuation of the pus. The rectum passes through the cavity so that the pockets on either side almost meet under it on its sacral aspect. Had it opened into the rectum I think it would have discharged itself more completely and have done better than it has done by this high vaginal opening, although I am, in this opinion, at variance with the majority of teachers. I am now breaking down this irregular and unhealthy granulation tissue with my fingers, and washing out the abscess with a solution of mercuric bichloride in water, 1-2000. I will now stitch this rubber drainage tube, whose end reaches to the sacrum beside the rectum, to the vaginal edges. As it will take a long time for the cavity to contract, it will be necessary later, either to dilate the vaginal opening again, or introduce a self-retaining drainage tube after the orifice has contracted and hardened enough to hold it. For ordinary irrigations I prefer a two per cent. carbolic solution as being safer and more stimulating than a mercuric solution. For washing out abscesses opening into the rectum, plain water is preferable on account of the dangerous absorbant power of the bowel.

RÉSUMÉ.

Gentlemen, this concludes my portion of this course of clinical lectures. In these eleven clinics in this amphitheater, we have had six peritoneal sections, a laceration of the perineum extending high up into the rectum cured by Tait's method of operation, an Alexander's operation, an amputation of the cervix, and the usual number of lacerations of cervix and perineum, uterine curettings, etc. Among the peritoneal sections we have not had a bad symptom; nor a case of suppuration among the plastic operations except in the drainage tube hole of the Alexander operation. A lesson to be learned is that it is not the atmosphere nor remote surroundings that need occupy our attention, but rather the field of the operation. Strict cleanliness as to all that comes in contact with the patient, whether it be an instrument or finger, an article of clothing, a sponge or what not, will do more to insure good results than all else. With it poor operators even may obtain good results, without it even good operators must have humiliating experiences.

MEDICAL PROGRESS.

BLISTERING BY HYPNOTIC SUGGESTION.—In the *Bolnitchnaia Gazeta Botkina*, Nos. 26, 27 and 28, 1890, p. 650, DR. IAKOV V. RYBALKIN, of St. Petersburg, publishes his remarkable experiments, which confirm the statements made by Presalmins (1840), Focachon, Beaunis, Delbœuf, Forel, Jendrassik, and Krafft-Ebing that cutaneous blisters can be easily raised by hypnotic suggestion. The author's experiments were performed in the presence of a number of the medical officers of the Mariïnskaia Infirmary, the subject being a strongly-made and well-nourished house-painter aged 16, suffering from typical hysteria magna and extremely sensitive to hypnotising procedures and post-hypnotic suggestions. On February 21, at 8.45 P.M., the patient was thrown into a deep hypnotic sleep, and then told that, after awakening, he was to shiver from cold and to approach a stove in the room in order to warm himself; when doing so he was to touch the stove with his right forearm and to contract a severe burn ("pain, redness, heat, bladder,") about the middle of the inner surface of the part. The suggestions were repeated thrice, after which the lad was ordered to awake. He obeyed all the suggestions in the strictest possible manner, and even loudly screamed from pain as soon as the suggested area came in contact with the stove (which was quite cold). On immediately inspecting the part a slight palish swelling, surrounded by a reddish zone, which proved to be painful on touch or pressure, was found exactly at the suggested point. The limb was at once bandaged, and the lad sent to bed (in the room). He could not fall asleep, however, being tormented by an acute "rending" pain caused by the "accident." On removing the bandage at 11 P.M., a considerable swelling with papular erythema was found, the adjacent zone, 4 or 5 centimeters wide, being exceedingly tender. The limb was again securely bandaged, and re-examined at 10 A.M. on the next morning, when there were found two slightly yellowish semitranslucent blisters as large as a nut and a pea respectively, and around them a group of smaller vesicles (each of the size of a

pin's head). On another examination at 3 P.M. (eighteen hours after the "accident"), all the individual blisters proved to have coalesced into one large bladder. Two hours later the blister burst. The after course presented nothing different from an ordinary case of burn.—*British Medical Journal.*

TREATMENT OF ACUTE GONORRHŒA WITH THE CONSTANT CURRENT.—After Apostoli and Laquerriére had published the effect of the constant current upon microörganisms, PROCHOWNIK (*Münchner Med. Wochenschrift*) undertook a similar work and reached a like result, *i. e.*, that the positive pole of a galvanic current possessed distinct anti-mycotic properties. From this he inferred that the application of the positive pole might be useful in certain forms of uterine and cervical catarrh, as well as gonorrhœa. Of this latter class four cases are described in which the application was followed by prompt improvement. The first case was that of a woman infected by her husband on the 2nd of September. Eleven days later she came under the author's care, with typical gonorrhœal inflammation of the cervix and urethra, but only moderate involvement of the vagina. Numerous bacteria were found in the secretions, but they all contained gonococci, and a pure culture of the latter was obtained from the secretion of the cervix. The discharges were thick and of a greenish color. From September 18 until Oct. 5 the battery was employed six times by means of copper sound in the uterus with a current strength of from 80 to 100 milliampères. After the third application the secretion of the cervix was free from gonococci, and after the sixth was free from all germs and remained so for one year, during which time they were occasionally looked for. The cervical secretion after six weeks was clear and has remained so up to the present.

A second case was that of a woman who had been delivered six weeks before the infection. The urethra and vulva were severely inflamed but the vagina remained comparatively free. The disease extended to the subinvoluted uterus which discharged thin bloody pus. The patient was treated in the same way as the first case and after seven applications the discharges were free from germs. Shortly after her recovery she again conceived and was delivered of a healthy child.

A third case, that of a young woman, 16½ years of age, with a very narrow vagina. She was at first treated for a severe colpitis; when this was relieved, the positive pole was applied in the uterus. After ten treatments the gonococci had completely disappeared from the discharges. The patient remained under observation for six months, but without any return of the disease.

A fourth case, similar to the second, was treated with equally brilliant results.

The author comes to the conclusion that the cervix is the most important place for the development of the gonococci, and from this nidus they extend themselves along the mucous membrane of the uterus to the tubes and from there to the cellular tissue of the pelvis. The urethra may be left to take care of itself, as the germs soon disappear, or it may be treated with the current, though the author says that a strength of 30 or 40 milliampères is not tolerated except when cocaine is used. When the vagina is involved it should be irrigated with a solution of sublimate or chloride of zinc, followed by the use of clear water.

SUCCESSFUL REMOVAL OF HYDATID TUMOR OF THE BRAIN.—In the *Australasian Medical Journal* for July, 1890, DR. GRAHAM and MR. GRUBBE record a case recently under their care in which a hydatic tumor was removed from between the dura mater and pia mater of the brain. The patient was a lad sixteen years of age, who suffered from severe headache, nausea, vertigo, double optic neuritis with atrophy, loss of memory, mental dulness, and paresis of the right arm and leg. A tumor involving the left motor area was diagnosed, and Mr. Grubbe trephined over it. He found the bone very thin, not more than ⅛ in. thick, and on opening the thickened dura mater a single simple hydatid cyst was seen, and easily extracted. The pia mater was intact. The cyst measured 4 in. in diameter, and held 19 oz. of fluid. The patient recovered. After six weeks he was able to get up and walk, his memory returned, and in all respects he was well except for his blindness. Such a case as this was extremely favorable for surgical treatment, as its situation greatly facilitated exact diagnosis, and its removal was unattended with any injury to the brain itself. It is believed to be the first recorded case of the kind. Dr. Davies Thomas records three cases of recovery from cerebral hydatids, in one of which the cysts were passed through the nose and mouth; in two others they were removed through incisions in the scalp after the tumors had perforated the cranium.—*Lancet.*

HÆMORRHAGE FROM THE CLITORIS DURING LABOR.—MENSINGA (*Internationale Klin. Rundschau*, July 29, 1890) reports an interesting case of this kind. A woman 36 years of age had seven or eight children, and in the most of her labors had employed no physician. The pains in the last labor were very severe and rapid, so that the head was soon on the perinæum, when they ceased and a severe hæmorrhage set in, this continuing for some time. Mensinga was sent for. He completed the labor easily with forceps, without any apparent laceration of the soft parts. The hæmorrhage still continued, notwithstanding that the uterus was fairly well contracted. A closer examination revealed a small rent in the

region of the clitoris from which a fine stream of blood constantly poured. The author refers to the case of Berthod (*Gazette Médicale, Nr. 33*) in which a fatal hæmorrhage took place from rupture of a varix of the clitoris by a fall upon the arm of a bench. He discusses the possibility of the sudden distension of the vulva causing the rupture of a similar varix in this case.

AMERICAN THERAPEUTICS OF DIPHTHERIA.—PROF. A. JACOBI, M.D., in this paper, presented at the Berlin Congress, traced the history of various epidemics entending from 1659, when Samuel Danforth lost "four children by bladders in the windpipe," down to the time (1868) when he furnished a list of 203 cases, by which it became known that the contagion was very active and affected every kind of wound. The present condition of the therapeutics of the disease in North America was marked by the extra attention devoted to prophylaxis both in literature and in practice. The sanitary arrangements made in New York City for combating epidemics of the disease were admirable, the cases being carefully isolated. Practitioners endeavored to preserve the general health of their patients by the use of cold water, and the catarrh of the mucous membranes of the nose and throat were combated with salt water, boracic acid, nitrate of silver, exsection of hypertrophied tonsils, etc. Chlorate of potassium was employed to preserve intact or to restore the mucous membrane of the oral cavity, tincture of the chloride of iron for its anti-fermentative and astringent effect, in frequent doses, so that a child of a year takes from three to four grams daily, in twenty or forty doses. The local treatment of diphtheritic wounds or surfaces (circumcised prepuce, vagina) was mostly by tincture of iodine, iodoform in powder or ointments, or solutions of bichloride of mercury, 1 in 1000 or 3000. An extensive list of other drugs was given. Gargles were considered adjuvants when no violence was used in their administration, but nasal injections were gradually taking their place, seeing that they reach the most affected part of the larynx much better and are much better tolerated. Nasal diphtheria would not get well without some warm, mild injection. Conjunctival diphtheria he treated with ice and strong solutions of boracic acid. Referring to the medical treatment of diphtheria, he was of opinion that it was impossible to give too much brandy in this disease, and stated that from 50 to 1000 grams might be given daily with advantage. Alcohol ought to be given early, and a certain quantity in all cases, seeing that heart failure comes unexpectedly, and then stimulation comes generally too late. It was therefore a good practice to give cardiac tonics in time. Strychnine was indispensable in diphtheritic paralysis. The author spoke of the effects of mercury on this disease, and then alluded to the operative treatment by intubation, which had supplanted tracheotomy because of the rapidity, bloodlessness, and equal efficiency with which it can be performed. Its results in the hands of its discoverer, O'Dwyer, were as good as those in tracheotomy. Every case was managed according to its individual indications; isolation was enforced, fluid food given, moderate stimulation resorted to, absolute rest enjoined, even the nasal injections are made in a recumbent or semi-recumbent posture, and complications watched and treated.—*Lancet.*

THE CHANCES OF TERTIARY SYPHILIS.—FOURNIER, before the Congress for Dermatology and Syphiligrophy, held in Paris in August, 1889 (*Annual de Dermatol. et. Syph.*), gave his experience in 2,600 cases of syphilis, extending over the past twenty-nine years. The question at what time are tertiary symptoms most likely to appear, was answered by 2,395 cases in the following way: 1. The frequency of tertiary syphilis increases from the first to the third year after infection, reaching the highest point in the third year. 2. The number rapidly falls from the fourth to the eleventh year. In the next decade the number falls more slowly. From the twenty-first to the thirtieth year, tertiary symptoms are seldom, while after thirty years they are very rare indeed.

The relative frequency with which different organs are attacked was in 3,429 cases, as follows: Tertiary syphilide, 787; subcutaneous gumma, 128; tertiary genital forms, 157. The tongue was affected in 152, gums 179, pharynx 71, other mucous membranes 30, bones 336, nose 173, joints 14, tendons (gumma) 3, muscles 12, digestive tract 4, rectum 5, pharynx and trachea 23, lungs and heart 2, aorta 6, liver 9, kidneys 9, testicles 145, eyes 69.

The nervous system was affected with extraordinary frequency, 1,075 cases, nearly one-third of the entire number. The following were the chief forms: Brain syphilis 461, cerebro-spinal symptoms 11, monoplegia 3, medullary syphilis 77, tabes 355, tabes (cerebro-spinal) 45, muscle atrophy 19, general paralysis 32, insanity 9, eye paralysis 57, facial hemiplegia 13, unclassified 11.

ETIOLOGY OF PANOPHTHALMITIS AFTER INJURY FROM A FOREIGN BODY. — POPLAWSKA (*Fortschr. d. Med.*) examined twelve eyes that were enucleated for this cause. The vitreous body showed the most important changes. It presented a marked infiltration of small cells, especially in the neighborhood of the foreign body, and also a fibrinous exudate. In this exudate germs were found consisting of bacilli, in the form of strings, nests and masses either free or, as in two cases, enclosed in white blood cells. From the absence of bacilli in the anterior chamber, he was justified in assuming that the bacilli were introduced with the foreign body and then

caused suppuration. Cultures could not be made, owing to the fact that the specimens were preserved in alcohol.

SOMNAL.—The new hypnotic, somnal, has been tested by DR. FRANK WOODBURY, who, in a recent number of the *Dietetic Gazette*, states as his conclusions that instead of depressing the system as chloral does, it slightly stimulates the gastric mucous membrane, relieves nausea and pain, improves the appetite, increases the secretion (probably), and does not cause constipation. The circulation, respiration and temperature are not notably depressed after its administration. It acts, he says, very much like chloral, but is more pleasant to take and not so depressing in its effects upon the nervous system and the circulation.

BROMINE AS A DISINFECTANT.—Bromine as a disinfectant is said to be coming to the front. It is an inexpensive by-product of the manufacture of salt, selling at 70 cents a pound, and in solutions containing one part in weight to about eight hundred of water, it may be used freely without affecting anything which it may touch. A few gallons used daily will remove all ammoniacal odors from stables, or a few quarts will thoroughly deodorize the entire plumbing system of an ordinary house. The undiluted bromine is strongly corrosive, and if it touches the skin causes a painful burn.—*The Pacific Record.*

THE MODE OF ACTION OF PATHOGENIC BACTERIA.—Although the "germ theory of disease" is now generally accepted, and the microörganisms themselves have been demonstrated and cultivated, little is yet known about their mode of producing diseases in their hosts. Various theories have been advanced, but no definite result has been obtained until quite recently. ROUX and YERSIN were the first to make any discoveries; they experimented with the diphtheritic bacillus of Löffler. They found that in cultures of this organism a "poison" existed, soluble in water, which possessed the same properties, when injected into animals, as the pure culture itself, producing acute nephritis, fatty degeneration of the liver, inflammatory œdema at the site of inoculation, and paralysis of the hinder extremities. The poison acted slowly, the local symptoms only appearing after several days. They obtained the poison by filtration of the broth cultures through a Chamberland (porcelain) filter and evaporating the filtrate in a vacuum. They also found this poison is far more abundant in old cultures than in recent ones; that it is precipitated by alcohol, and that it is destroyed at 100° C., and its virulence weakened at a temperature of 58° C. Brieger and C. Frankel have confirmed these experiments and extended them in many ways. They likewise selected Löffler's bacillus for investigation. For the exhibition of the specific poison they cultivated it on ordinary peptone broth, or in broth which had been mixed with from 4 to 5 per cent. of glycerine and 10 per cent. of serum obtained from ox blood. The culture was filtered through a Chamberland filter, the filtrate evaporated to one-third of its original bulk in a vacuum at a temperature of 30° C. and was then treated with ten times the quantity of absolute alcohol with a few drops of concentrated acetic acid. The mixture was allowed to stand for twelve hours surrounded by ice and then filtered, the precipitate being dissolved in water and again filtered. The filtrate was then evaporated to dryness in a vacuum, and a light amorphous mass, snow white in color, remained. This substance gave the reaction of a proteid, allied to serum albumen. It was insoluble in alcohol, and precipitated by strong mineral acids, ferrocyanide of potassium, and acetic acid. It also gave the biuret reaction, the red coloration with Millon's reagent, the xantho-proteic reaction, and turned the polarized ray to the left. This substance was extremely poisonous, and when injected into animals produced the same symptoms as the culture. Brieger and Frankel found a second proteid in the filtrate, allied to the first in its chemical composition, but not poisonous. The above observations are a great advance in our knowledge of bacteriology, but even more valuable work has been done by DR. SIDNEY MARTIN for the Local Government Board, the results of which he read before the Royal Society on May 22 of this year. Dr. Martin chose the anthrax bacillus for his investigations. He cultivated it on pure alkali-albumen, filtered this through Chamberland's filter, and proved by means of the microscope and further cultivation experiments that the filtrate contained no bacilli or spores. He obtained two poisonous proteids—albumoses— which produced in mice local œdema, and in larger doses slow death in stupor and coma. But here, however, he went further than the German observers; he found also an alkaloid, similar in action to the anthrax albumoses, but much more powerful. The chief chemical characteristic of the purified albumoses, according to Dr. Martin, is their strong alkalinity in solution; as the alkaloid is a strong base and alkaline, he suggests that the alkalinity of the albumoses is due to the alkaloid being in a nascent condition in the albumose molecule. The alkaloids form crystalline salts in the forms of needles and prisms with mineral and oxalic acids. The importance of these observations cannot be too strongly commented on; they are the first of what will probably be a long series of experiments, and will greatly advance our knowledge of microorganisms, and happily lead to improved methods of treatment.—*Lancet.*

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PHTHISIS AND TUBERCULOSIS.

DRS. HENEAGE GIBBES, Professor of Pathology in the University of Michigan, and E. L. SHURLY, Professor of Clinical Medicine in the Detroit College of Medicine, have published a series of papers in the *American Journal of the Medical Sciences*, reviving again, in an altered form, the old question of the identity of phthisis pulmonalis and tuberculosis, which many of our readers have probably been fondly hoping was forever set at rest by the discoveries of KOCH. The experimental and pathological studies which the papers embody, would seem to have been conducted with great care, and, whatever may be thought of the conclusions reached by the authors, some of the facts, as stated by them, need either to be contradicted or explained before the relations of the various diseases commonly classed as tubercular to each other and to the tubercle bacillus can be said to be clearly made out.

Dr. Gibbes, who approaches the subject from the pathological side, claims that phthisis and tuberculosis are absolutely distinct processes, which not only never pass into each other, but, so far as his observation extends, never occur in the same subject. According to him, tubercle consists, histologically, of giant-cells, contained in a reticular stroma. In phthisis, the primary lesion is a broncho-pneumonia, the alveoli and bronchi being filled with small cells, and fibrin, without any giant-cells. Both morbid products may undergo cheesy degeneration, followed by liquefaction and formation of cavities, most frequently in the apices of the lungs. Both may occur disseminated in small nodules—so-called miliary tuberculosis—indistinguishable to the naked eye, but always entirely distinct in their microscopical appearance.

Believing, as Dr. Gibbes does, in the absolute distinctness of the two processes, it is natural that he should doubt the dependence of both on a common cause—the bacillus of Koch. He claims to find important differences in its distribution in the lesions of the two diseases. In phthisis it is uniformly present at all stages, and is found in cavities in enormous numbers. In tubercle, on the contrary, it is never found until caseation has taken place, and may be absent even after the formation of cavities. He is very emphatic and positive in regard to its absence in the early stages of miliary tubercle, having examined an immense number of specimens, stained after the most approved methods, with the most powerful microscopes, without finding a single bacillus. As the author is an acknowledged authority on the staining of bacteria, it would not seem that his statements could be dismissed on the ground of defective observation, in the absence of reliable statements to the contrary by equally competent observers.

It is claimed by Koch and his followers that a disease, identical in all respects with human tuberculosis, can be produced in animals by inoculating them with a pure culture of the tubercle bacillus, from which all of the original tuberculous matter has been eliminated. On this point Dr. Gibbes first calls in question the accuracy of Koch's experiments, on what seems to us the rather slight ground that his accounts of them do not prove that he took all the precautions which he himself declares to be necessary to avoid the possibility of including some of the original matter. It would certainly have been much more satisfactory if Dr. Gibbes had satisfied himself and informed us, from actual experiment, exactly what the effect of inoculation with a pure culture is. He then goes on to deny the identity of the lesions of artificial tuberculosis with those found in the human subject in either of the diseases under consideration. The nodules found in the lungs and other organs of the subjects of such experiments consist, he says, of collections of round cells, bearing no resemblance to either true reticular tubercle or the broncho-pneumonic lesion of phthisis. They undergo cheesy degeneration,

and bacilli are then found in them at that stage, but are invariably absent in the earliest stage of the disease.

He questions the identity of the bacillus found in bovine tuberculosis with that occurring in the human subject, both on account of its smaller size and because the lesions produced by inoculating rabbits are in some respects dissimilar, bearing more resemblance to those of tuberculosis in the human subject than those resulting from inoculation with human tuberculous matter. He also gives the results of examination of a variety of animals—mammalia, birds and reptiles, dying with what was considered tubercular disease, which we omit as of no special importance in their bearing on the question at issue.

The clinical side of the subject is treated in a separate article by Dr. Shurly, and also in the concluding paper of the series which appears under the names of both collaborators. It can not be said that he adds very much to our previous knowledge. He agrees with Dr. Gibbes as to the non-identity of phthisis and pulmonary tuberculosis, and says that "the careful observer" will be able to distinguish between them, but, although he describes acute, sub-acute and chronic phthisis, he fails either to describe tuberculosis or to indicate by what criteria it is to be distinguished from phthisis. As neither author informs us where we can find the lacking information, it is to be feared that even careful observers may not know what they should look for. As they take the ground that the distinction is an important one in regard to prognosis, phthisis being a curable disease in its earlier stages, while tuberculosis is incurable from the start, it is to be hoped that this deficiency may be supplied when they publish the results of researches which they say they are making in regard to heredity and contagion in these diseases.

Assuming the correctness of these observations, what conclusions may be properly drawn from them in regard to the relations of the bacillus of Koch to the various processes which have been considered tubercular, and in connection with which it is found? Prof. Gibbes does not assert that the bacillus is not the cause of any of the diseases with which it is associated, although he makes his opinion plain that it is not the cause of all of them. In order to answer this question intelligently it may be well to call to mind some of the facts which may be considered established. One of these is, that the inoculation either of tuberculous matter or of a pure cultivation of the bacillus is capable of producing in the lower animals, a disease, characterized by the development of nodules, in the lungs and elsewhere, which present a certain resemblance to miliary tubercles, and contain, sooner or later, the characteristic bacillus, which disease is capable of being propagated to other animals by inoculation. The criticisms of Prof. Gibbes cannot be considered to invalidate the positive results of numerous observers to this effect. PROF. KOCH reports, in his address before the Berlin Congress, that bacilli which he has had under cultivation for nine years are unchanged except for a slight diminution of virulence. That any of the original matter used for inoculation would, under such conditions, preserve its virulence so long seems, to say the least, very improbable.

The important points raised by Prof. Gibbes in opposition to the theory that the bacillus is the cause of the various diseases that are called tuberculous, are, first, that the lesions are histologically distinct, and, secondly, that the bacillus is absent from the lesions of some of them in their earlier stages.

If we are to accept his histological distinctions as valid, we must believe that inoculation of matter from the lesions of either of two distinct diseases—phthisis and tuberculosis—will produce a third infectious disease, distinct from both. If we accept the results of other observers, we must conclude that the same effect may also be produced by inoculations with the bacillus alone. This would be something as if the inoculation of matter from either measles or small-pox should invariably produce scarlatina. It would seem at least equally probable that the same morbific agent might produce somewhat different reactions under varying circumstances.

In regard to the alleged absence of the bacillus from the early lesions of tuberculosis, this peculiarity appears, according to Prof. Gibbes, to be shared by the disease produced by inoculation. Whatever may be the reason for his failure to find it in the one case may explain its absence in the other.

It would seem, then, that in order to refute the view of Koch and his followers as to the etiology of the tuberculous and phthisical processes, it is

incumbent on Prof. Gibbes to prove that the inoculation of the tubercle bacillus, by itself, is not capable of producing the effects alleged. If its introduction, in minute quantities, into guinea pigs, rabbits, dogs and other animals is capable of setting up in them a fatal infectious disease, it would be strange if its presence, in great abundance, in the human system, should be innocuous.

To question the conclusions drawn by Dr. Gibbes from the facts which he reports is not by any means to depreciate the interest and possible importance of the facts themselves. They seem to offer an inviting field for further study. It may be that the microörganisms in the two forms of disease which he distinguishes are not identical, notwithstanding their apparent similarity. But probably the framing of hypotheses to account for the facts would be better left to the investigators themselves.

PROTRUSION OF THE CERVIX UTERI A CAUSE OF DELAYED LABOR.

Cases of labor, in which there is a prolongation of the anterior lip of cervix pushed downward before the presenting part, are sufficiently frequent and are easily managed. Exceptional cases, however, occur from time to time wherein the accident is a most undesirable cause of protracted labor. The tissues may be so firm, at the external os, that the cervical walls containing the presenting head will be stretched to an exceedingly thin covering and be caused to protrude between the thighs of the patient.

Dr. Jaentzer describes such a case in the *Archives de Tocologie*, for May, where a midwife was in attendance. The delayed labor caused the calling in of this physician on a statement that the expansion of the os uteri was complete and that the head of the child was presenting, but that no neck could be felt, by digital examination, on the child above the head, and no uterine cervix. On ocular examination, he found a tumor as large as the head, reddish in color and containing an orifice about ½ an inch in diameter, protruding from the vulva. The occiput of the child, thinly covered by the layer of distended cervical tissue, was presented to the left side of the mother; rotation had not taken place. Anæsthetics were administered and the tense tissues at the external os were incised and the opening enlarged, by digital manipulation, and the membranes ruptured. The child was dead; it was delivered by traction with little difficulty, the midwife making counter-pressure on the retracted tissues. The cervix was readily restored to position, and the patient, under antiseptic precautions, made a good recovery. It could not be found, by subsequent inquiry, that there was any history of prolapse of the cervix during pregnancy, or of any inflammatory process, causative of the complication in question; its cause remains unknown. It has sometimes happened that women, with a history of specific infection, and with an inflammatory rigidity of the uterine mouth and neck, have had their labors retarded from this cause. But under profound anæsthesia and the use of dilators the obstructing tissues can usually be forced to recede and the labor terminated with or without the use of forceps. Duhrssen has advised the use of multiple incisions in the cervix in delayed labor due to the rigidity of inflammatory processes, and holds it to be a process nearly devoid of danger, if the incisions be made in many places and not extensively in any one of them, and if antiseptic measures be thoroughly carried out. By this procedure, it is thought that the life of the child may not infrequently be saved, when otherwise it would be lost through the delay incident to other methods of relief.

EX PEDE HERCULEM.

While for the most part it is wise for professional and technical journals to refrain from any controversy with the lay press, there is occasionally such a flagrant invasion of the scientific field, that it would not be wise to pass it by in silence. We refer especially to an editorial in the *Chicago Herald*, a journal devoted to the exploiting of politics, anent "Insanity of Insane Experts." In this article we find the following: "Doctors who make a specialty of insanity are known to become either morbid upon the subject or actually mad." We challenge this statement as one emanating from the inner consciousness of the writer, as nowhere is it supported or affirmed in the literature of medicine. Krafft-Ebing, Bucknill, Tuke, Spitzka, Savage, Meynert and Charcot are either morbid or actually mad according to this enlightened "expert!"

That attendants upon the insane are more likely to become insane than those outside of asylums, is admitted, but that this is explained solely by association with the insane will hardly be believed when we reflect that the asylum attendant is frequently overworked, for long hours, and that the occupation is peculiarly trying and full of anxiety. Attendants spend the greater portion of their time within doors and they are disinclined to active exercise when opportunity offers. While these, mostly physical conditions, play the chief rôle in the production of insanity among attendants upon the insane, we are not disposed to deny that association alone may be an important factor, particularly among the mentally weak and imperfectly educated. This idea of mental contagion is embodied by French writers in the *folie à deux*. That this sort of contagion renders all students of psychiatry morbid or mad we are disposed to deny, especially as there are no facts or statistics to support such a conclusion.

The statement that "the number of persons sent to insane asylums and in them made insane, is undoubtedly increased by the want of precision in tests of insanity, and the dependence of ignorant and timid jurymen upon the pretensions and affirmations of experts." If it is true that in erecting palatial hospitals for the insane, we have constructed nothing but factories for lunatics, the sooner they are closed the better. But we think this statement, like the others, must have arisen from the depths of the editor's brain. We must ask for the facts, and if he can produce a single authentic case in the State of Illinois, where a sane person has been sent to an asylum and there made insane, we will admit the truth of the proposition.

By a careful perusal of the editorial we are forced to the conclusion that the writer has himself dabbled in psychiatry, and that he has been infected with the "subtle and insiduous intellectual malaria in the atmosphere of insanity." In the future we would advise the writer to avoid this subject;—avoid it, as he would a pestilence!

"WESTERN HEALING" IN CHINA.

The above is an expression used in Chinese cities by those practitioners who desire to have it known that they are learned in foreign medical methods. When a native doctor puts on his sign-board the words, "western healing," he relies upon this announcement as a means of attracting patients; he appeals to a sentiment which he knows is already widely diffused—so widely, in fact, that it now offers the best method of securing lucrative practice. Such sign-boards are not infrequent and may be found even in the country districts remote from the provincial cities. This fact is more significant when contrasted with some of the incidents in the early history of "western healing" in Canton, as recorded in the earliest reports of medical missionary work in that city. When the first important case of surgery was presented at the Canton hospital, it was necessary to amputate the man's arm with a view to saving his life. This necessity was explained fully to the man and he refused firmly to permit the surgeon to do the operation. It was only by the gift of fifty dollars given the patient by MR. JARDINE, who was a surgeon by profession and who was to act as assistant to DR. PARKER, the operator, that the man's life was saved. From this point, about half a century ago, the work has grown, by dint of tireless industry, skill and judgment, to the present day; now not a year passes by without the founding of one or more new hospitals in some part of the Flowery Kingdom. The latest movement, recently inaugurated in the United States, is one having for its object the building of the first asylum for the insane which China will possess. This, like the first "western healing" hospital, will have its location at Canton.

EDITORIAL NOTES.

MILK AND ELECTRICITY.—An Italian scientist, Tolomei, has made a study of the souring of milk by thunder-storms, and concludes that this rather annoying phenomena of the dairy and household is explicable on the ground of the production of ozone during such storms. It may not act directly upon the milk to sour it, he thinks, for he prefers not to ignore, or discard, the prevailing opinion that the change is due to the presence of the bacterium-ferment and is allied to other fermentations. He assumes that in the presence of ozone, when it comes into contact with the upper surface of the milk—in the form of a layer superimposed on it, without agitation—the bacterium finds its most favorable

conditions of propagation. Some experiments made by Tolomei go to show that ozone, when electrically generated without detonation, effects the souring of milk more rapidly than when its liberation is abrupt and accompanied with report.

SOUVENIR OF THE BERLIN CONGRESS.—We note that the *British Medical Journal*, for August 23, contains a double-page illustrated sheet giving process-portraits of eight of the leaders of the German-speaking medical profession who took part in the recent International Congress. We see there the faces of Virchow, Koch, Leyden, Von Bergmann, Leibreich and Gerhardt, of Berlin, Billroth of Vienna, and Esmarch of Kiel. These reproduced photographs are not of the finest order of engraved work, yet the faces therein portrayed are sufficiently clear and individual to serve as a remembrance of the occasion and of some of Germany's representative teachers. As it may not be generally known that the *British Medical Journal* has its regularly appointed agent in the United States, we take the occasion here to add that the publishing house of the Blakistons, 1012 Walnut street, Philadelphia, is its representative in this country.

MEDICAL COLLEGES—A COMPARISON OF THEIR REQUIREMENTS—The *Times and Register* of September 20, contains a valuable article, with tabulated statements of the requirements on the part of medical students by our various colleges, precedent to graduation. It will be found valuable not only for purposes of comparison, but will serve as a basis for determining the average of medical requirements in this country.

AMERICAN RHINOLOGICAL ASSOCIATION.—The eighth annual meeting of this Association will be held at the Gault House, Louisville, Ky., October 6, 7 and 8, 1890. The profession is cordially invited to attend the meetings of the Association. The President, Dr. Arthur G. Hobbs, of Atlanta, Ga., will deliver the opening address. The following named railroads have granted rates of one and one-third: Louisville & Nashville, Queen & Crescent, Louisville Southern, Newport News & Mississippi Valley Co., and the Ohio & Mississippi. These tickets are good for the week, and will include the Mississippi Valley Medical Association, which meets Wednesday, Thursday and Friday of the same week. Be sure and take a certificate from each and every ticket agent from whom you purchase a ticket on your way to Louisville. Present this to the Secretary for countersign, when you will be entitled to return at one-third fare.

THE CANADIAN MEDICAL ASSOCIATION.—At the annual meeting of this association, held in Toronto on September 9, 10, and 11, the following officers were elected for the coming year: President, Dr. T. G. Roddick, of Montreal; General Secretary, Dr. Birkett, of Montreal; Treasurer, Dr. W. H. B. Aikins, of Toronto; Vice-Presidents, Ontario, Dr. A. H. Wright, of Toronto; Quebec, Dr. S. P. Lachapelle, of Montreal; New Brunswick, Dr. S. H. Coburn, of Fredericton; Nova Scotia, Dr. John Stewart, of Pictou; Manitoba, Dr. D. Young, of Selkirk; British Columbia, Dr. E. A. Prager, of Nanaimo; Prince Edward Island, Dr. Taylor, of Charlottetown; Northwest Territories, Dr. E. A. Kennedy, of MacLeod. The next meeting will be held in Montreal.

NEW YORK POLYCLINIC.—The catalogue of the New York Polyclinic shows an attendance for the session of 1889–90 of 422. The Faculty have resolved to exclude all but graduates of regular medical colleges from matriculating at this school. Practitioners who are graduates of a regular medical college, or who have attended one or more courses of lectures at such college, and have a legal permit to practice, will be admitted.

VIRGINIA STATE MEDICAL SOCIETY.—At the meeting of the Virginia State Medical Society, held recently at Rockbridge Alum Springs, the election of officers resulted in the choice of Dr. W. W. Parker, of Richmond, for President, Dr. John W. Dillard, of Lynchburg, Dr. Jacob Michaux, of Richmond, and Dr. H. M. Patterson, of Staunton, First, Second and Third Vice-Presidents, respectively; Dr. Landon B. Edwards, of Richmond, Recording Secretary; Dr. John F. Winn, of Richmond, Corresponding Secretary; and Dr. R. T. Style, of Hollins, Treasurer.

SURGICAL DRESSING FOR SOLDIERS.—The Government of India has sanctioned the issue of a packet of first field dressing, in lieu of a bandage, to every officer and soldier proceeding on active service, irrespective of whether the operations are undertaken against a European power or not.

TOPICS OF THE WEEK.

THE ANTIQUITY OF THE HUMAN RACE.

In the Anthropological Section of the British Medical Association at the recent meeting in Leeds, the President of the Section, in the course of a very able address, referred to the subject, and his remarks are reported by a correspondent of the *Lancet* as follows: He said: "One of the most vital questions was: What is the antiquity of the human race—or rather, what is the antiquity of the earliest objects hitherto found which can with safety be assigned to the handiwork of man? This question is susceptible of being entirely separated from any speculations as to the genetic descent of mankind; and even were it satisfactorily answered to-day, new facts might to-morrow come to light that would again throw the question entirely open. On any view of probabilities, it is in the highest degree unlikely that we shall ever discover the exact cradle of our race, or be able to point to any object as the first product of the energy and intelligence of man. It may, however, be hoped that from time to time fresh discoveries may be made of objects of human art, under such circumstances and conditions as may enable us to infer with certainty that at some given point in the world's history mankind existed, and in sufficient numbers for the relics that attest this existence to show a correspondence among themselves, even when discovered at remote distances from each other. Of late years how little have we heard of any scruples in accepting as a recognized geological fact that, both on the continent of Europe and in these islands, which were then more closely connected with that continent, man existed during what is known as the quaternary period, and was a contemporary of the mammoth and hairy rhinoceros, and of other animals, several of which are either entirely or locally extinct. The principal instances on which the believer in tertiary man relies may be classified under three heads: (1) The presumed discovery of parts of the human skeleton; (2) that of animal bones said to have been cut and worked by the hand of man; and (3) that of flints thought to be artificially fashioned. On the whole, therefore, he thought that the present verdict as to tertiary man must be in the form of "not proven." As to the origin and home of the Aryan family, the last twenty years had seen important changes; but, after all, they were speculations merely. In concluding, the speaker said: "There are, indeed, now but few parts of the world the inhabitants of which have not, through the enterprise of travelers, been brought more or less completely within our knowledge. Even the centre of the dark African continent promises to become as well known as the interior of South America, and to the distinguished traveler who has lately returned among us anthropologists as well as geographers owe their warmest thanks. It is not a little remarkable to find so large a tract of country still inhabited by the same diminutive race of human beings that occupied it at the dawn of European history, and whose existence was dimly recognized by Homer and Herodotus. The story related by the latter about the young men of the Nasamones who made an expedition into the interior of Libya, and were there taken captive by a race of dwarfs, received curious corroboration from modern travelers. Herodotus may, indeed, slightly err when he reports that the color of these pigmies was black, and when he regards the river on which their principal town was situated as the Nile. Stanley, however, who states that there are two varieties of these pigmies, utterly dissimilar in complexion, conformation of the head, and facial characteristics, was not the first to rediscover this ancient race. At the end of the sixteenth century Andrew Battel, our countryman, who, having been taken captive by the Portuguese, spent many years in the Congo district, gave an account of the Matimbas, a pigmy nation of the height of boys of twelve years old; and in later times Dr. Wolff and others have recorded the existence of the same or similar races in Central Africa."

WORKING HOURS FOR WORKING MEN.

At the recent meeting of the Brighton Sanitation Congress Dr. W. B. Richardson delivered an address upon this subject, to which the *Lancet* makes the following reference:

"He much regretted that at such congresses the working classes could not take an active part throughout with other members, and that they could not have a working man presiding over one of the Sections. But whatever might be the case in the future, this was not at present possible. Work, he proceeded to urge, was every man's portion, and was valuable, not only as a fact, but as an idea provocative of good results even from the humblest worker. Work was hard or difficult according to the will of the worker, and in this respect there was a great deal of difference in the relations of employers with workmen. As regarded any limitation that should be put on work, he said from a sanitary and health point of view eight hours was a good standard, not absolute, because the pressure of work varied, but as a fair average. What was wanted in order to get at that standard was not so much change in the relations between employer and employed as a change in the public mind, the public at large being most exacting in their demands, and making hard workers keep long hours really for no useful purpose whatever. It would be a good point to begin with if the hours of buying and selling could be reduced. Three classes of work were of especial moment: where with bodily exertion the intensest watchfulness was demanded—as, for example, in the case of the railway engine-driver; where it was one continued grind and monotony, as in the case of postmen; and where the work was excessively hard—as in pile-driving. There were occupations in which the body was in a bent position while at work, in which cases the period of eight hours for work was the maximum, and was often too long. Objection might be made to these arguments that man was not a mere machine, but had a mind. But this only made the toil the harder, for the mind was at work all the time. Another objection was that some luxuries, like indulgence in alcoholic drinks, might promote decay more rapidly than the hardest work, and that the

men who had no occasion to work injured themselves by physical labors and pleasures quite as much as those who had to work for their bread. There must also be a better system of recreation duriug week days, in which music must play a large part—music which could be provided in great extent by the working classes themselves. For health's sake and life's sake, for the health and life of the nation as well as of the individual parts of it, the periods of labor require a great deal of lightening. An example bearing to millions of minds a meaning as beautiful as it was forcible required to be set. The yoke might be made easy, the burden light, before the healthy working heart could beat out, to the full length of days, the healthy body and the healthy mind. Selfishness and want of common sense had to be removed, and it was for associations like the Sanitary Institute to make those reforming ideas known far and wide, and so lead to what they so much desired—the best cultivation of the garden of the world."

ETHER DRINKING.

As our readers are doubtless aware, ether is used largely as an intoxicant in various parts of the North of Ireland, and the practice is stated to have arisen during the teetotal movement so successfully carried on by Father Mathew. Those who had taken the pledge against alcohol not wishing to break it, found that by using ether they could still indulge in the habit of intoxication. The ether can be obtained at almost any hour. It is rapid in its action, and the effect disappears shortly; but the chief attraction is in the small quantity (about a tablespoonful or less), and the cheapness of the drug. Methylated ether being the cheapest form, is the kind generally used, and as its cost is about one penny an ounce, its consumption is very great.—*Brit. Med. Jour.*

STATE MEDICINE.

In private life the office of the physician is to subdue or mitigate illness, as far as possible, so that his patients may be able to devote themselves to their work or pleasures. To this end, in addition to his combat with actually developed disease, his advice is freely tendered respecting personal hygiene—habits of diet, of dress, occupation, exposure, etc.

Toward the aggregated people, as massed into States, the medical profession as a body occupies a correlative position.

It is our duty, as a class, to indicate to the governing powers the best devised means of protecting the citizens of the Republic against preventable bodily ills. Medicine is, consequently, to a far greater extent than is officially or popularly recognized, of economic importance to the Government.

However costly be its work, surely public hygiene saves more to the State than is actually expended. Countless lives are preserved, the waste of disease minimized, and material production or exchange in a relative ratio is increased. This point, capable of much elaboration, should be constantly brought to the attention of legislators. Scarcely anything can be more important to the community than the preservation of its present and future effective force. The commander is idolized who in time gains a glorious victory at the sacrifice of comparatively few men. Peace hath its victories no less than war, we are told, and this work of State medicine, under whatsoever name it be carried on, is surely one of the chiefest.

This country of ours, so vast in domain, with so many diversities of climate, such an extensive coast line, such a mobile population, flooded constantly by a stream of immigration from all parts of the Old World, peculiarly exposed to the importation of virulent infections, stands in special need of public prophylaxis.

It is gratifying, therefore, to know that of late years earnest study and strenuous effort have been devoted to the solution of problems relative to public health. A number of able papers upon sanitation were presented to the recent meeting of the American Medical Association. —Dr. John V. Shoemaker, *Tenn. Health Bulletin.*

A SUBSTITUTE FOR TOBACCO.

Many different vegetable substances used as stimulating beverages in widely distant parts of the world have been shown to contain caffeine as their active principle. Only one substitute for tobacco has, however, yet been discovered. This is the leaves of the duboisia Hopwoodii, a shrub growing in Australia, the leaves of which are chewed by the blacks in the same way and for the same purpose as tobacco is chewed. The leaves contain an alkaloid piturine, which is said by certain chemists to be identical with nicotine, but more probably is only closely allied to it. Messrs. Langley and Dickinson have recently shown that the actions of nicotine and piturine are in every respect identical.

THE HEART-BEAT AFTER DEATH.

A few days ago a criminal was executed at Epinal, France. Immediately after the execution, which was effected very rapidly, the corpse was given over to Dr. Gley, Professeur Agrégé at the Paris Medical Faculty. The heart beats were observed during six minutes after death. Dr. Gley was able to study auricular and ventricular contraction, which he observed to be independent of each other. Dr. Halletté examined the dead body of another criminal executed at Montreuil, and detected the heart beats a quarter of an hour after death.

CURING CONSUMPTION BY INOCULATION.

Whatever may be the results of Dr. Koch's experiments, about to be made, of curing consumption by inoculation, they are sure to lead to considerable disagreement among doctors; and, though success should crown his efforts, it is safe to predict that years will be required to introduce the process. In the meantime we may expect a renewal of the discussions that attend every proposed system of inoculation for any purpose. The importance of finding a cure for consumption will, however, excite general interest in the experiments to be made.—*Times and Register.*

PRACTICAL NOTES.

TREATMENT OF A "COLD" BY SALICYLATE OF SODA.

The *Memphis Med. Jour.* says of this remedy: Salicylate of sodium in free doses give as satisfactory results in the treatment of "bad colds" as it does in cutting short tonsillitis. Sodii salicylatis, ℥ss; syr. auranti cort., ℥ss; aquæ menth. piper., ad. ℥iv. M. Sig. A dessertspoonful every three or four hours. A dose every three hours until a free specific influence of the salicylate—tinnitus aurium—is observed—will so far control the symptoms that the aching of the brow, eyes, nose, etc., will cease. The sneezing and "running from the nose" will also abate and will disappear in a few days, not leaving, as is usual under other treatment, a cough, from the extension of the inflammation to the bronchial tubes.

BOILED WATER.

If there is the least suspicion that the water-supply is polluted, get the small quantity to be used for drinking purposes from some source entirely above suspicion. If this is impracticable, boil all water for drinking, and to remove the insipid taste of boiled water, filter it. Even infected water used in cooking, and in making tea or coffee, is undoubtedly entirely safe, providing it has actually been boiled.—*Sanitary Inspector.*

ANTISEPSOL.

The following method of preparing antiseptol, the trivial name given by M. Yvon to cinchonine iodo-sulphate, is given by the *Pharmaceutical Journal:* Dissolve 25 grams of cinchonine sulphate in two litres of water, and precipitate this with a solution of 20 grams of potassium iodide and 10 grams of iodine in a litre of water. The light voluminous kermes brown precipitate that is produced is described as being inodorous, insoluble in water, soluble in alcohol and in chloroform, and as containing 50 per cent. of iodine. It is said to be an efficient substitute for iodoform.

CORROSIVE SUBLIMATE SOLUTIONS.

We have occasion so frequently to recommend the use of a solution of corrosive sublimate to destroy the germs of disease, that it seems well to give some instructions for its preparation. To make a standard solution, from which the weaker solutions may be made, take four ounces of corrosive sublimate and one pound of sulphate of copper, and dissolve them in one gallon of water.

To make a solution of 1 to 500, add 8 ounces of the above to 1 gallon of water. To make a solution of 1 to 1000, add 4 ounces of the above to 1 gallon of water. To make a solution of 1 to 2000, add 2 ounces of the above to 1 gallon of water. Remember that these solutions, while most effective in the destruction of disease germs, are, at the same time, highly poisonous.—*Annals of Hygiene.*

PRESCRIPTION OF PEPSIN WITH ANTACID.

Dr. I. N. Love, of St. Louis, offers the following prescription as a pleasant antacid in the summer disturbances of children, where there is a history of several days' looseness of the bowels or frequent evacuations:

Listerine,
Glycerine,
Brandy (best),
Syrup of tolu, of each two drachms.
Essence of pepsin (Fairchild's), one ounce.

In this combination Dr. Love does not find that the alkaline constituents of the listerine interferes with the action of the pepsin; the clinical results have been satisfactory, although the dictum of the chemist would lead one to expect an impaired activity.—*Dietetic Gazette.*

TREATMENT OF VARIOLA.

Dr. Gawalowski reports excellent success in the treatment of variola with baths of permanganate of potassium. The salt is added until the water is of a rose red color. By this method the temperature is lowered, the pustules disappear, and recovery takes place rapidly.—*Revue de Therap. Med. Chir.*

PRESCRIPTION FOR BRONCHITIS.

Tincture of hyoscyamus,
Compound spirit of ether,
Syrup of tolu,
Syrup of wild cherry,
Water, equal parts of each.
The dose of this is a teaspoonful.

—Dr. E. J. Janeway, *Southern Med. Record.*

AMENORRHŒA.

Prof. Parvin, in cases of amenorrhœa in young girls, especially if anæmic, recommends the following pill very highly:

℞ Ferri sulphat. exsic.,
Terebinthinæ albæ, āā gr. j.
Pulv. aloës, gr. ¼-j.
Use such a pill t. d.

TREATMENT FOR SLEEPLESSNESS AND DELIRIUM.

In a case of sleeplessness of typhoid fever, Prof. Da Costa described urethran, grs. xx, to be repeated once. In a case of delirium in a man who had pneumonia he used paraldehyde ℥j with an equal quantity of oil of sweet almonds. If it will do good, three doses are sufficient.—*College and Clinical Record.*

FOREIGN CORRESPONDENCE.

LETTER FROM LONDON.

(FROM OUR REGULAR CORRESPONDENT.)

Curious Statistics of Longevity—Relative Mortality amongst European Troops—The Effects of Influenza on Hurts and Surgical Accidents and Wounds—Ladies of Title and Foreign Princesses among the Ranks of Trained Nurses—The "Asclepiad" on Fasting—Sulphate of Copper as a Disinfectant—Annual Report of the Inspector of Retreats—A New Spray to produce Local Anæsthesia—Medical Aid for Indian Women—The Inconveniences of Fashions in Medicines.

Some curious statistics of longevity have just been published by the German Government. It appears that in 1888 there were ninety-one persons in Prussia who were over a hundred years old, and between 1864 and 1888 upwards of seven thousand persons of over a hundred died, and of these one hundred and fifty-five were more than one hundred and nine.

Some details have just been published on the relative mortality amongst European troops during time of peace. As one might suppose, the Spanish troops give the highest standard of mortality, and that not because the soldiers are weakly so much as the sanitary arrangements are inadequate or neglected. The deaths represent 13 in a thousand. Russia comes next, but the interval is large. The mortality is about 9 in the thousand. Then follows the Italians with 7·74. So far the series is almost as a shrewd observer might guess it would be. What follows is more perplexing and more interesting. Austrian, French, English, Belgian and German; that is the order. In round numbers the deaths of Austrian soldiers are in the thousand 7, of French 6, of English a little over 5, of Belgian a little over 4, and of Germans a little under 4. This is a great triumph for the Germans, the more so as the largeness of their army ensures a certain reliability in their statistics. One other detail is given. The ravages of consumption are enormously greater in the case of the British army than of any other nationality. In this case the French are the most favored.

Attention is drawn to the effect of influenza on hurts and surgical accidents and wounds. It also affects weak eyes. The want of recuperative force in persons undergoing surgical operations who were attacked with influenza has been most marked. The flesh did not heal, and this was also the case in patients who had had influenza but who were convalescent when operated upon.

One of the medical papers takes occasion to comment upon the strongly fashionable favor which nursing is now enjoying, and points to the fact that English ladies of title and foreign princesses and countesses are now found among the ranks of trained nurses. It may be supposed that ladies of this position who take it up as a profession do so out of honest devotion to the work, even where the calling is adopted for bread winning it is not without considerable advantages. The fear is that it will become overcrowded, as indeed it begins appreciably to be. In what other female profession is there so well conceived a pension fund as that of the nurses?

Referring to the recent fasting ordeals in England and America the *Asclepiad* is of opinion that it may now be assumed that a forty or forty-two days fast with continuance of life is well within the order of natural phenomena, and that the human body has a possible power of endurance from ten to eleven days beyond what has recently been attempted, the extreme limit being fifty-three to fifty-five days. It follows that the technical opinion on fasting given in coroner's courts and in courts of justice, as well as the opinion that will have to be written in technical and standard works of medical jurisprudence, must in future be considerably modified. Another lesson is the long time life can be sustained by water alone. The writer of the article further notes the curious fact that where the disposition to starve goes with the starving the powers of endurance are immensely prolonged.

The Spanish authorities, as also the French and the Austrians, are insisting upon the exclusive employment of sulphate of copper for the disinfection of evacuations (vomits and fæcal matter) and of linen, etc., in the sick room. It has also to be used for washing the face and hands of persons in contact with choleraic patients. In most cases this disinfectant is being given away gratis by the administration to those applying for it. In the report on disinfectants recently prepared at the instance of the Hygienic Institute and Medical Direction of Buda Pesth, based upon exhaustive researches, the use of sulphate of copper is urged as the best of all disinfectants—better than carbolic acid in any form and incomparably better than sublimate and all the more recently introduced disinfectants. Laxiviated ashes are commended as a disinfectant, especially for privies, as also lime wash. Both are pronounced inferior to copper sulphate.

The Home Office has just issued the tenth annual report of the Inspector of Retreats with respect to six retreats licensed under the Inebriates Acts, 1879 and 1888. It is said that but for the somewhat formidable attestation before the magistrates the majority of those now entering the homes as private patients would be willing to avail themselves of the provisions of the Acts. The licensee of one retreat writes: "The number of applications received for admissions has been very high, amounting often to 12 and 14 a week,

but alas, only a tithe of the cases are received, owing to the impossibility of securing the consent of the patients to being placed under restraint, and I fear that until some alteration is made in the law the usefulness of these retreats will be very much restricted." Likely patients are very sensitive and increased willingness among them to take advantage of the benefits of these homes is ascribed to the removal in the altered title of the Act of the obnoxious epithet "habitual drunkard." It is complained that patients show a strong tendency to enter a home for an insufficient period. Hence come disheartening breakdowns, not immediate, as a rule, but upon the first cause, from extra excitement—a marriage or a death, a pecuniary loss or a gain, a holiday or extra worry alike may serve to prove that the recuperative work has been but half done. Plenty of open air exercise, with the maintenance of a cheerful spirit in the home are especially commended as important factors in the curative treatment of inebriety.

Local anæsthesia is produced at one of the leading hospitals by means of a spray composed of ten parts of chloroform, fifteen parts of ether and one part of menthol. After one minute's application of this compound spray, complete anæsthesia of the skin and neighboring tissues is produced and will persist from two to six minutes. This suffices for some minor operations, such as opening an abscess of the cervical glands, incising a deep-seated whitlow or excising an epithelioma of the nose, etc.

The efforts made in providing medical aid for Indian women are bearing good fruit. The Dufferin Fund now employs thirty qualified lady doctors and has 230 ladies under training as nurses. So far it reckons that its benefits have reached some 200,000 poor native women, but as Lady Dufferin herself asks, what is this among so many? Taking, however, into consideration the different Medical and Lenana Missions, the total sum of good accomplished in this direction make up a very considerable whole. It is a rule strictly observed by the Dufferin Fund that all those whom it employs shall be fully trained and highly qualified, and by insisting upon this condition it is securing the best medical services which women are capable of rendering.

In his presidential address at the Pharmaceutical Annual Conference at Leeds, the President dwelt upon the inconveniences of fashions in medicines. The great change in our materia medica that has taken place during the last 30 years has on the whole been beneficial, but the president nevertheless deplored the unfortunate habit of running after new remedies. It is a startling token of the spread of the public faith in patent medicines that the government stamp duty on these nostrums has risen since 1860 from £43,000 to £220,000 per annum, or nearly fivefold. Altogether the English public are calculated to spend about 1¼ millions sterling every year on these articles alone. G. O. M.

DOMESTIC CORRESPONDENCE.

The New York State Examination Act.

To the Editor:—In view of Dr. Carroll's letter in THE JOURNAL of September 13, 1890, it would seem proper for me to add a final word, which I promise shall be the last.

As I did not, in my letter of August 30, attempt to defend the Act in question, but did point out the misrepresentations of Dr. Carroll in regard to the Medical Society of the State of New York, which any one unprejudiced could readily see was the sole purpose of my communication, it is difficult to understand how he can say that I misapprehend "both the intention of my [his] criticism and the act which he defends." When a man of presumed information asserts that there was a time in its history when but "two [members] per annum out of the many 'eligibles' could be elected" in the Society in question, there would appear to be very little reason to expect any gain from further discussion with him on that point. As the question of "code" is foreign to the object in view, I beg to decline a discussion of that subject also; particularly as there are other more important questions that engage the attention of the medical profession just at present.

WILLIAM WARREN POTTER.

284 Franklin Street, Buffalo, Sept. 20, 1890.

NEW INSTRUMENTS.

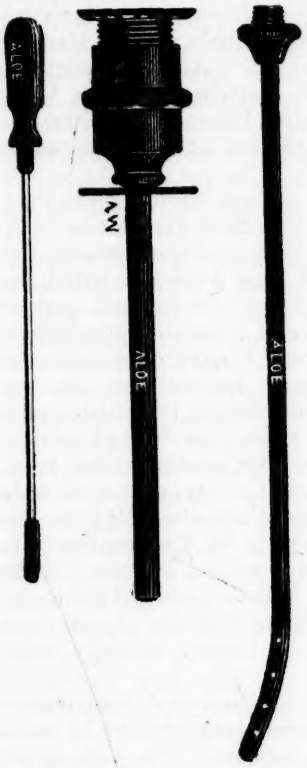
MODIFICATION OF LEWIS' URETHRAL APPLICATOR.

BY G. FRANK LYDSTON, M.D.,
OF CHICAGO, ILL.

Dr. Bransford Lewis, of St. Louis, Mo., recently published, in THE JOURNAL, a very ingenious applicator for the purpose of applying dense, oily liquids to the urethra. The instrument consisted of a round box with a tight-fitting cover, and a rubber tube for introduction into the urethra. The cover is provided with a thread which tightly fits a female screw with which the inner surface of the box is provided. The ointment that is to be applied is placed in the box, the tube is introduced into the urethra and the cover screwed in until the required quantity of the medicament has been forced into the canal.

As the soft rubber tube is rather unmanagea-

ble, I have devised a modification of the instrument, in which a hard rubber endoscopic tube is utilized instead of the soft tube. Another detachable tube, slightly curved near the point, is used for the cervix uteri.



I can endorse this apparatus as an efficient means of medicating the urethra and cervix in chronic inflammatory affections. I do not, however, recommend its use in acute affections of these parts.

Opera House Block.

NECROLOGY.

Death of Sir Edwin Chadwick.

Few men have deserved better of their country than the veteran sanitarian, whose death at the advanced age of 91, we have to record. His investigations of the sanitary condition of London, dating back to 1847, were the official starting point of a reorganization of the Health Department, and laid the public legislative basis of the first of a series of sanitary reforms which have been of inestimable value during the last half century in the saving of life and diminution of sickness and disablement. His subsequent services to the cause of army health reform and his continuous devotion to great and small questions of public and personal sanitation, placed him quite in the first rank of non-medical sanitary reformers. It has always been the great failing of this class of valuable public men, while assimilating the facts and conclusions placed at their disposal by great investigators such as Grainger, Snow, Farr, Rumsey, Parkes, and Simon, to assume to themselves a much larger share of merit in the building up of the edifice of public sanitation than, under any searching investigation, properly belonged to them. No one, however, will more cheerfully admit, or indeed, enforce than ourselves—speaking on behalf of medcal men—the immense claims of Sir Edwin Chadwick to public gratitude, and the great services which he rendered by the application which he made of the medical knowledge placed at his disposal, and of the principles which the great sanitary reformers to whom we refer laid down for his guidance, and of the public whom he addressed. It has been aptly observed that had he, as a military man, succeeded in destroying one-hundredth part of the lives which he was prominent in assisting to save, his statue would have been erected long since in more than one of the great cities of the empire, and he would have been loaded with honors and titles. As it is, it was not until he attained the age of 90 that he received the honor of knighthood. Through a long series of years he languished in the shade of official displeasure and retirement, and it was only his indomitable energy, untiring industry, and capacity for clear statement and the summary of voluminous detail which enabled him frequently to arrest public attention to his amateur utterances on subjects on which he ought to have been enabled to speak with official weight. His career was one of unchecked labor and unalloyed usefulness, and his memory will remain for many long years as that of one of the greatest and least rewarded benefactors of the people of this kingdom. It will be interesting to see what, if any, public recognition is made—now that he has passed away—of so distinguished a career and such vast services.—*Brit. Med. Journal.*

William Kitchen Parker, M.D.

Dr. William Kitchen Parker, for many years professor in comparative anatomy at the Royal College of Surgeons, England, died in July last at Cardiff, aged 67 years. He was one of the most eminent morphological anatomists of his day and the author of many valuable works, among which may be mentioned his "Morphology of the Skull," "The Shoulder Girdle" and "Mammalian Descent." For many years the Royal Society appropriated annually a large share of its research funds to publish and illustrate his monographs and papers. During much of the time that he was most active in original research and in the publication of his valuable

works, he was also engaged in general practice to get a living. A few years ago, the government granted him a small pension, on which he retired and devoted his whole time to the anatomical studies he loved so well. He was an enthusiast, a vigorous and indomitable scientist, and pre-eminent for his care in giving credit to his fellow-workers who were enabled to add anything to the sum of knowledge in the fields in which he worked.

BOOK REVIEWS.

TRANSACTIONS OF THE NEW YORK STATE MEDICAL ASSOCIATION FOR THE YEAR 1889. Volume VI, Edited for the Association by EDWARD K. DUNHAM, M.D., of New York City, and published by the Republican Press Association, Concord, N. H., and J. H. Vail & Co., New York. 1890.

The sixth volume of Transactions of the Association has just come to hand. The Committee on Publication consisted of Drs. Alfred L. Carroll, of New York County, Chairman; Glover C. Arnold, of New York County; William B. Eager, of Orange County; J. W. S. Gouley, New York County; John H. Hinton, of New York County; John G. Truax, of New York County; and E. D. Ferguson, of Rensselaer County.

The volume of 450 pages is published in a style creditable to the publishers, and bears evidence of the most painstaking labor on the part of the Editor, Dr. Edward K. Dunham.

The sixth annual meeting convened at Hotel Brunswick, New York City, September 25, 26 and 27, 1889. President, Wm. T. Lusk, M.D., of New York, officiating, and the Report of the Committee of Arrangements presented by its Chairman, Dr. John G. Truax, was accepted and adopted.

The President's Address upon "Tubal Pregnancy," with illustrations, is an admirable paper, and worthy of most careful perusal. It was very ably discussed by Drs. Goodell, of Pennsylvania, Henry O. Marcy, of Massachusetts, and by Janvrin and Henry F. Risch, of New York County. The second special subject considered was that of "The Treatment of Hernia." The leading paper upon this subject was presented by Dr. Joseph D. Bryant, of New York City. Among other important papers presented was that on "Alcoholic Insanity," by T. D. Crothers, of Connecticut. "Fads Old and New" receive their just deserts from Dr. Didama, of Syracuse, N. Y. "The Temporary Transfixion Ligature" was the subject of a carefully prepared paper by Dr. Thomas H. Manly, of New Nork City. "Shadow-Lines of Insanity" is the title of an interesting article by Dr. John Shrady. Under the heads of leading questions, the subject of hernia receives a very extended and exhaustive discussion from a number of prominent surgeons. The general address upon Medicine was presented by Dr. E. K. Dunham, of New York City, his subject being the "Bacteriological Tests of Drinking-Water."

Dr. Henry O. Marcy has an article upon "The Cure of Hæmorrhoids and the Use of Buried Animal Sutures." "Ataxic Paraplegia" is discussed by Dr. Darwin Colvin, of Wayne County, and Dr. Charles Edmund Bull has an able paper upon "Extraction of Cataract without Iridectomy."

The third general subject upon the programme is that of "The New Hypnotics." The leading paper under this head was presented by Dr. Wm. H. Flint, of New York, in which he considers the value and uses of sulphonal, amylene hydrate, hydrobromate of hyoscine, paraldehyde and urethran; his object being "to give a summary of the therapeutic applications, the contraindications, the toxicology, the modes of administration, and in some cases the physiological action of these newer hypnotics." Dr. Wm. H. Robb, of Montgomery County, presents a valuable paper upon "Pelvic Cellulitis." "The Treatment of Acute Peritonitis by Laparotomy" is discussed by Dr. John Cronyn, of Erie County, and by others. An article upon "Diphtheria," by Dr. E. F. Marsh, of Oswego County, was read by title—giving its history, etiology, symptoms and treatment.

Our limits preclude the presentation of a full list of the papers presented or of the discussions that accompany them. The volume will be found to be a valuable accession to any library, and reflects great credit upon the work of the Association.

The Report of the Librarian, Dr. J. W. S. Gouley, states that the library of the Association now numbers 8,000 volumes, and is now placed in the same building with the Mott Memorial Library. The total fellowship of the Association, as reported at the annual meeting for 1889, was 732, and represented by five District Branches, including the entire State of New York. The growth of this organization in the brief period of six years is the best guarantee possible of its permanent success.

FAMILIAR FORMS OF NERVOUS DISEASE. By M. ALLEN STARR, M.D., PH.D. With Illustrations, Diagrams and Charts. 8vo, pp. 339. New York: William Wood & Co. 1890.

The object of this handy volume is to make known to practitioners the recent marked advances in neurological medicine, particularly in the direction of the localization of brain and spinal cord lesions with special reference to diagnosis and medical and surgical treatment. It is in no sense a text-book or systematic treatise on

diseases of the nervous system but, as set forth by the author, a systematic digest of the work in the Nervous Clinic of the New York College of Physicians and Surgeons.

The first seven chapters give a brief but very clear outline of the present knowledge of cortical function and localization, while chapter six, on aphasia and the cortical areas governing language, is particularly clear and valuable. The explicit directions for the thorough examination of patients presenting difficulties of speech from cerebral causes are worthy great attention. Chapters ten and eleven are devoted to a discussion of the localization of spinal cord disease. Chapter fourteen, on multiple neuritis, is a reproduction of the author's valuable article on this interesting and important topic in "Wood's Reference Handbook of the Medical Sciences." Chapter twenty, by Frederick Peterson, on ordinary forms of insanity, presents the subject attractively and instructively, but of necessity in the briefest manner. The importance of the early diagnosis of general paresis, upon which he dwells, is timely. His preference for private over public institutions for the treatment of acute cases, however, will be questioned in many quarters. Electro-therapeutics are treated with scant courtesy, and the static form of electricity is pithily classed with "other mild forms of counter-irritation," and aside from its mental effect relegated to the limbo of things useless.

Typographically and otherwise the book is a credit to the publishers. The cuts are clear and of material value to the context. The style is lucid and free from pedantry. It is heartily commended as furnishing the practitioner in condensed form what is latest, best and most practical in the treatment of the diseases discussed.

THE ANATOMY OF THE CENTRAL NERVOUS ORGANS IN HEALTH AND IN DISEASE. By DR. HEINRICH OBERSTEINER, Professor at the University of Vienna. Translated, with annotations and additions, by ALEX. HILL, M.D., M.R.C.S., etc. With 198 Illustrations. Pp. 432. Philadelphia: P. Blakiston, Son & Co.

A careful reading of this extremely valuable addition to the literature of anatomy, and in particular to its most complicated part, commands admiration for the thoroughness, painstaking and indefatigable labor of the author who, from a mass of material formerly scattered in periodicals, has collected, carefully weighed and herein systematically presented the best that is known on the subject. He has been very fortunate, moreover, in his translator, who has given us a book in English, and not the jargon which so frequently characterizes translations from other languages, and especially from the German. An obscure or involved sentence is sought for in vain, and a wholesome use of Saxon is very refreshing on a subject usually buried under a pedantic nomenclature.

The work in no wise takes the place of text-books on descriptive anatomy, a knowledge of which it presupposes, but is prepared for the advanced student, practitioner and specialist. A notable feature of the book is its American-like wealth of illustration. The cuts are not only original but extremely well executed, and the plan of showing the exact appearance of sections and their schematic outline in association is productive of happy results. Were the parts named in full instead of indicated by initials they would leave nothing to be desired.

The opening section gives in a brief, practical way the various methods of examination, and is followed by skilfully arranged chapters on Morphology, Histology, Arrangement, Topography, Course and Connection of Nerve-fibres, etc. A plentiful and judicious use of face type is made, to indicate topics and sub-heads. Occasional interpolated paragraphs by the translator, himself an authority on the subject, add material value and clearness to the text. Owing to its advanced and technical character the book may meet with a limited demand, but no one who gives attention to the advances made in this branch of medical knowledge will be without it.

A TEXT-BOOK OF MENTAL DISEASES, WITH SPECIAL REFERENCE TO THE PATHOLOGICAL ASPECTS OF INSANITY. By W. BEVAN LEWIS, L.R.C.P., M.R.C.S. (Eng.), Medical Director West Riding Asylum; Lecturer on Mental Diseases at the Yorkshire College. With Illustrations in the Text, Charts, and Eighteen Lithographed Plates. Pp. xxii, 552. Philadelphia: P. Blakiston, Son & Co. 1890.

In this interesting volume the author has aimed at a full presentation of the anatomical and pathological aspects of his subject, believing that former text-books on mental diseases have been disproportionately occupied with the clinical side of insanity. The work is divided into three parts. Part I deals with the anatomy of the cord, medulla, mesencephalon, thalamencephalon, prosencephalon, the encephalon as a whole, the cerebral cortex and cortical lamination. Part II, the clinical section, discusses the states of depression, states of exaltation, fulminating psychoses, mental enfeeblement, recurrent insanity, epileptic insanity, general paralysis of the insane, alcoholic insanity, insanity at the periods of puberty and adolescence, at the puerperal and climacteric periods, and senile insanity. Part III, the pathological section, takes up the subjects of morbid conditions of the cranial bones, investing membranes, brain substance, histological elements of cortex, forms of tissue degradation, and the pathological anatomy of general paralysis, of epilepsy and of chronic alcoholism.

The anatomical and pathological sections are handsomely illustrated by numerous lithographic plates. The clinical section contains numerous tables and charts of statistics and many clinical reports of illustrative cases. The author's statistics are based upon an analysis of 4,000 cases of insanity treated at the West Riding Asylum.

TRANSACTIONS OF THE AMERICAN ASSOCIATION OF OBSTETRICIANS AND GYNECOLOGISTS, 1889. Vol. II. Edited by DR. WILLIAM WARREN POTTER, Secretary, Buffalo, N. Y.

This, as its title indicates, is the Transactions of the second meeting of this Association. The Association is one which is bound to make itself felt in the lines of scientific obstetrics and gynecology. Its first two meetings have been pronounced successes. The present beautiful volume of Transactions contains papers read and discussed covering the whole range of obstetrics and gynecology, by the following well-known men: Rollin L. Banta, Buffalo; David Barrow, Lexington; J. Henry Carsten, Detroit; William J. Conklin, Dayton; William S. Gardner, Baltimore; Rufus B. Hall, Cincinnati; Hampton C. Hill, Saco, Me.; Joseph Hoffman, Philadelphia; Lewis S. McMurtry, Danville; E. E. Montgomery, Philadelphia; William H. Myers, Fort Wayne; William Warren Potter, Buffalo; Joseph Price, Philadelphia; Charles A. L. Reed, Cincinnati; Geo. Rohé, Baltimore; Byron Stanton, Cincinnati; William W. Seymour, Troy, N. Y.; William H. Taylor, Cincinnati; A. Vander Veer, Albany; William H. Wathen, Louisville; Wm. H. Wenning, Cincinnati; Xavier O. Werder, Pittsburgh.

THE NEUROSES OF THE GENITO-URINARY SYSTEM IN THE MALE; WITH STERILITY AND IMPOTENCE. By DR. R. ULTZMANN, Professor of Genito-Urinary Diseases in the University of Vienna. Translated by GARDNER W. ALLEN, M.D., Surgeon in the Genito-Urinary Department, Boston Dispensary. Philadelphia and London: F. A. Davis, 1889.

We have in this little work the translation by Dr. Allen, of two monographs written by Prof. Ultzmann, of the University of Vienna, upon two important subjects. If additional light can be thrown upon them, its value will be quickly appreciated by those who have found them difficult of diagnosis, and often intractible in management. The neurosis of the genito-urinary organs are very fully considered. Reflex influences receive especial attention. The diagnosis, prognosis and treatment of these affections will be found instructive to students and helpful in practice. The second monograph deals with sterility and impotence in the male. It is a valuable article. The volume is one of the "Ready Reference Series."

MISCELLANY.

LETTERS RECEIVED.

Dr. J. B. Payne, Hot Springs, Ark.; S. J. M. Putnam, Mendota, Wis.; Dr. S. P. Deahofe, Potsdam, O.; Dr. J. W. Keating, Ann Arbor, Mich.; Dr. C. M. Headrick, Tecumseh, Neb.; Dr. S. H. Toy, Johnson City, Tenn.; Dr. Robert Reyburn, Washington, D. C.; Clark, Forbes & Co., Miamisburgh, O.; Dr. F. J. McGarvey, Cloquet, Minn.; Dr. B. P. Anderson, Colorado Springs, Col.; Dr. J. S. Parent, Birchton, N. Y.; Dr. J. S. Coleman, Augusta, Ga.; N. Y. Post-Graduate Medical School and Hospital, New York City; Dr. M. R. Brown, Chicago; Dr. P. C. Remondino, San Diego, Cal.; Dr. G. L. Eyster, Rock Island, Ill.; Dr. W. H. Geddings, Aiken, S. C.; Dr. J. E. Chancellor, Alum Springs, Va.; Julia H. Murphy, Mercer, Pa.; Dr. N. W. Hamilton, Grafton, N. Dakota; Dr. T. D. Crothers, Hartford, Conn.; Dr. Wm. A. Campbell, Ann Arbor, Mich.; L. S. Trowbridge, Detroit, Mich.; Dr. Louis A. Kengla, San Francisco, Cal.; Fourth National Bank, Columbus, O.; Commercial National Bank, Cleveland, O.; Surgeon-General Hamilton, U. S. M. H. S., Washington, D. C.; C. L. Topliff, Dr. J. E. Janvrin, Bellevue Hospital Medical College, Merchants Exchange National Bank, New York City; American National Bank, Nashville, Tenn.; Dr. C. W. Dulles, City National Bank, Howard M. DuBois, Phila.; Dr. A. A. Deering, Boone, Ia.; G. T. Gail, Lake Villa, Ill.; Dr. J. N. Dixon, Springfield, Ill.; Dr. Henry B. Baker, Lansing, Mich.; Dr. H. W. Elmer, Bridgeton, N. J.; Thos. F. Goode, Buffalo Lithia Springs, Va.; Dr. L. W. Baker, Baldwinsville, Mass.

Official List of Changes in the Stations and Duties of Officers Serving in the Medical Department, U. S. Army, from September 20, 1890, to September 26, 1890.

Major Johnson V. D. Middleton, Surgeon, is relieved from duty at David's Island, New York, and will report in person to the commanding officer, Ft. Columbus, New York City, for duty at that station, relieving Major Joseph R. Gibson, Surgeon, and reporting by letter to the commanding General, Div. of the Atlantic. Major Gibson, on being relieved by Major Middleton, will report in person to the commanding officer, David's Island, New York, for duty at that station, and by letter to the Superintendent of the recruiting service. Par. 1, S. O. 219, A. G. O., Washington, September 18, 1890.

Capt. Aaron H. Appel, Asst. Surgeon U. S. A., leave of absence for seven days granted by the commanding officer, Ft. D. A. Russell, is extended twenty-three days. Par. 3, S. O. 70, Dept. of the Platte, September 17, 1890.

Capt. C. B. Ewing, Asst. Surgeon, is granted leave of absence for one month, to take effect the 1st prox. Par. 5, S. O. 131, Dept. of the Missouri, September 22, 1890.

Under the provisions of General Order 43, c. s., Hdqrs. of the Army, Adjutant General's Office, the post of Little Rock Bks., Ark., will be abandoned, to take effect not later than October 1, 1890. Capt. Paul R. Brown, Asst. Surgeon, will accompany Company E to Ft. Supply, Indian Ter., and there take station until further orders. G. O. 15, Hdqrs. Dept. of the Missouri, St. Louis, Mo., Aug. 11, 1890.

Major J. P. Kimball, Surgeon, in view of the early abandonment of Ft. Elliott, Tex., to which post he is at present assigned for station, is relieved from duty at that post, and will, upon the expiration of his present sick leave of absence, proceed to Ft. Supply, Ind. Ter., and report to the commanding officer for duty. Par. 2, S. O. 132, Dept. of the Missouri, September 24, 1890.